

# CITATION REPORT

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## Powering Lithium-Sulfur Battery Performance by Propelling Polysulfide Redox at Sulfiphilic Hosts

DOI: 10.1021/acs.nanolett.5b04166  
Nano Letters, 2016, 16, 519-27.

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**Version:** 2024-04-10

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1032	Understanding the roles of activated porous carbon nanotubes as sulfur support and separator coating for lithium-sulfur batteries. <b>2018</b> , 268, 1-9	49
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1030	Carbon nanomaterials for advanced lithium sulfur batteries. <b>2018</b> , 19, 84-107	267
1029	Rational Design of Nanostructured Functional Interlayer/Separator for Advanced Li-S Batteries. <b>2018</b> , 28, 1707411	196

1028	Designing Realizable and Scalable Techniques for Practical Lithium Sulfur Batteries: A Perspective. <b>2018</b> , 9, 1398-1414	43
1027	Effective strategies for long-cycle life lithium-sulfur batteries. <b>2018</b> , 6, 6155-6182	125
1026	Sulfur film sandwiched between few-layered MoS <sub>2</sub> electrocatalysts and conductive reduced graphene oxide as a robust cathode for advanced lithium-sulfur batteries. <b>2018</b> , 6, 5899-5909	79
1025	Enhanced electrochemical kinetics in lithium-sulfur batteries by using carbon nanofibers/manganese dioxide composite as a bifunctional coating on sulfur cathode. <b>2018</b> , 269, 180-187	52
1024	Nitrogen doped yolk-shell carbon spheres as cathode host for lithium-sulfur battery. <b>2018</b> , 747, 283-292	14
1023	Core-shell polyhedrons of carbon nanotubes-grafted graphitic carbon@nitrogen doped carbon as efficient sulfur immobilizers for lithium-sulfur batteries. <b>2018</b> , 450, 364-371	23
1022	Iron-nitrogen-carbon species boosting fast conversion kinetics of Fe <sub>1-x</sub> S@C nanorods as high rate anodes for lithium ion batteries. <b>2018</b> , 338, 726-733	54
1021	Self-templated preparation of hollow mesoporous TiN microspheres as sulfur host materials for advanced lithium-sulfur batteries. <b>2018</b> , 53, 10363-10371	10
1020	Vanadium Dioxide-Graphene Composite with Ultrafast Anchoring Behavior of Polysulfides for Lithium-Sulfur Batteries. <b>2018</b> , 10, 15733-15741	70
1019	Stabilizing Lithium-Sulfur Batteries through Control of Sulfur Aggregation and Polysulfide Dissolution. <b>2018</b> , 14, e1703816	25
1018	In Situ Assembly of 2D Conductive Vanadium Disulfide with Graphene as a High-Sulfur-Loading Host for Lithium-Sulfur Batteries. <b>2018</b> , 8, 1800201	146
1017	Porphyrin-Derived Graphene-Based Nanosheets Enabling Strong Polysulfide Chemisorption and Rapid Kinetics in Lithium-Sulfur Batteries. <b>2018</b> , 8, 1800849	172
1016	A three-dimensional self-assembled SnS <sub>2</sub> -nano-dots@graphene hybrid aerogel as an efficient polysulfide reservoir for high-performance lithium-sulfur batteries. <b>2018</b> , 6, 7659-7667	70
1015	Toward High Performance Lithium-Sulfur Batteries Based on Li <sub>2</sub> S Cathodes and Beyond: Status, Challenges, and Perspectives. <b>2018</b> , 28, 1800154	81
1014	Revisiting the Role of Polysulfides in Lithium-Sulfur Batteries. <b>2018</b> , 30, e1705590	291
1013	Sustainable, inexpensive, naturally multi-functionalized biomass carbon for both Li metal anode and sulfur cathode. <b>2018</b> , 15, 218-225	66
1012	An interwoven MoO <sub>3</sub> @CNT scaffold interlayer for high-performance lithium-sulfur batteries. <b>2018</b> , 6, 8612-8619	122
1011	Metal-Embedded Porous Graphitic Carbon Fibers Fabricated from Bamboo Sticks as a Novel Cathode for Lithium-Sulfur Batteries. <b>2018</b> , 10, 13598-13605	44

1010	Enhanced performance of lithium-sulfur batteries with an ultrathin and lightweight MoS <sub>2</sub> /carbon nanotube interlayer. <b>2018</b> , 389, 169-177	85
1009	Core-shell structured MoS <sub>2</sub> @S spherical cathode with improved electrochemical performance for lithium-sulfur batteries. <b>2018</b> , 34, 1912-1918	29
1008	Construction of a stable lithium sulfide membrane to greatly confine polysulfides for high performance lithium-sulfur batteries. <b>2018</b> , 6, 8655-8661	8
1007	Nitrogen-doped carbon fiber foam enabled sulfur vapor deposited cathode for high performance lithium sulfur batteries. <b>2018</b> , 341, 441-449	41
1006	High-performance Li-Se battery cathode based on CoSe <sub>2</sub> -porous carbon composites. <b>2018</b> , 264, 341-349	33
1005	Honeycomb-Like Spherical Cathode Host Constructed from Hollow Metallic and Polar Co <sub>9</sub> S <sub>8</sub> Tubules for Advanced Lithium-Sulfur Batteries. <b>2018</b> , 28, 1704443	170
1004	Designing Safe Electrolyte Systems for a High-Stability Lithium-Sulfur Battery. <b>2018</b> , 8, 1702348	210
1003	Biomimetic Bipolar Microcapsules Derived from Staphylococcus aureus for Enhanced Properties of Lithium-Sulfur Battery Cathodes. <b>2018</b> , 8, 1702373	77
1002	Manipulating the Redox Kinetics of LiS Chemistry by Tellurium Doping for Improved LiS Batteries. <b>2018</b> , 3, 420-427	94
1001	Direct Observation of Electrochemical Lithium-Sulfur Reaction inside Carbon Nanotubes. <b>2018</b> , 1, 807-813	13
1000	A simple approach for making a viable, safe, and high-performances lithium-sulfur battery. <b>2018</b> , 377, 26-35	48
999	Elastic Sandwich-Type rGO/S <sub>2</sub> /S Composites with High Tap Density: Structural and Chemical Cooperativity Enabling Lithium-Sulfur Batteries with High Energy Density. <b>2018</b> , 8, 1702337	172
998	Sulfur Immobilization by Chemical Anchors to Suppress the Diffusion of Polysulfides in Lithium-Sulfur Batteries. <b>2018</b> , 5, 1701274	73
997	MOF-derived porous Ni <sub>3</sub> Co <sub>3</sub> O <sub>4</sub> @Ni nanododecahedra wrapped with reduced graphene oxide as a high capacity cathode for lithium-sulfur batteries. <b>2018</b> , 6, 2797-2807	212
996	Design of structural and functional nanomaterials for lithium-sulfur batteries. <b>2018</b> , 18, 35-64	82
995	Updated Metal Compounds (MOFs, S, OH, N, C) Used as Cathode Materials for Lithium-Sulfur Batteries. <b>2018</b> , 8, 1702607	168
994	Surface Chemistry in Cobalt Phosphide-Stabilized Lithium-Sulfur Batteries. <b>2018</b> , 140, 1455-1459	294
993	Graphene aerogels for efficient energy storage and conversion. <b>2018</b> , 11, 772-799	272

992	Stable cycling of lithium-sulfur battery enabled by a reliable gel polymer electrolyte rich in ester groups. <b>2018</b> , 550, 399-406		46
991	Lightweight Reduced Graphene Oxide@MoS Interlayer as Polysulfide Barrier for High-Performance Lithium-Sulfur Batteries. <b>2018</b> , 10, 3707-3713		182
990	Low Cost Metal Carbide Nanocrystals as Binding and Electrocatalytic Sites for High Performance Li-S Batteries. <i>Nano Letters</i> , <b>2018</b> , 18, 1035-1043	11.5	222
989	A multi-electron redox mediator for redox-targeting lithium-sulfur flow batteries. <b>2018</b> , 378, 418-422		6
988	Enhanced kinetics of polysulfide redox reactions on MoC/CNT in lithium-sulfur batteries. <b>2018</b> , 29, 295401		25
987	High-Performance and Low-Temperature Lithium Sulfur Batteries: Synergism of Thermodynamic and Kinetic Regulation. <b>2018</b> , 8, 1703638		86
986	CeF-Doped Porous Carbon Nanofibers as Sulfur Immobilizers in Cathode Material for High-Performance Lithium-Sulfur Batteries. <b>2018</b> , 10, 12626-12638		39
985	Self-supporting porous CoS <sub>2</sub> /rGO sulfur host prepared by bottom-up assembly for lithium-sulfur batteries. <b>2018</b> , 749, 586-593		48
984	Effective Dual Polysulfide Rejection by a Tannic Acid/Fe Complex-Coated Separator in Lithium-Sulfur Batteries. <b>2018</b> , 10, 12708-12715		29
983	Anchor and activate sulfide with LiTi <sub>2</sub> (PO <sub>4</sub> ) <sub>2.88</sub> F <sub>0.12</sub> nano spheres for lithium sulfur battery application. <b>2018</b> , 6, 7639-7648		15
982	A polypyrrole hollow nanosphere with ultra-thin wrinkled shell: Synergistic trapping of sulfur in Lithium-Sulfur batteries with excellent elasticity and buffer capability. <b>2018</b> , 271, 67-76		30
981	Facile fabrication of permselective g-C <sub>3</sub> N <sub>4</sub> separator for improved lithium-sulfur batteries. <b>2018</b> , 272, 60-67		31
980	Cobalt-Doped Vanadium Nitride Yolk-Shell Nanospheres @ Carbon with Physical and Chemical Synergistic Effects for Advanced Li-S Batteries. <b>2018</b> , 10, 11642-11651		85
979	Cationic polymer binder inhibit shuttle effects through electrostatic confinement in lithium sulfur batteries. <b>2018</b> , 6, 6959-6966		51
978	TiN synergetic with micro-/mesoporous carbon for enhanced performance lithium sulfur batteries. <b>2018</b> , 24, 2983-2993		10
977	N-doped yolk-shell hollow carbon sphere wrapped with graphene as sulfur host for high-performance lithium-sulfur batteries. <b>2018</b> , 427, 823-829		43
976	Enhanced sulfide chemisorption by conductive Al-doped ZnO decorated carbon nanoflakes for advanced LIB batteries. <b>2018</b> , 11, 477-489		33
975	Recent development of metal compound applications in lithium sulfur batteries. <b>2018</b> , 33, 16-31		33

974	Multifunctional Separator with Porous Carbon/Multi-Walled Carbon Nanotube Coating for Advanced Lithium-Sulfur Batteries. <b>2018</b> , 5, 71-77	27
973	Leaf-like interconnected network structure of MWCNT/Co <sub>9</sub> S <sub>8</sub> /S for lithium-sulfur batteries. <b>2018</b> , 731, 964-970	27
972	Hybrids of MnO <sub>2</sub> nanoparticles anchored on graphene sheets as efficient sulfur hosts for high-performance lithium sulfur batteries. <b>2018</b> , 22, 693-703	21
971	Polymeric multilayer-modified manganese dioxide with hollow porous structure as sulfur host for lithium sulfur batteries. <b>2018</b> , 259, 440-448	23
970	Electrocatalytically Active Niobium Sulfide Modified Carbon Cloth for Lithium-Sulfur Batteries. <b>2018</b> , 15,	8
969	MnS decorated N/S codoped 3D graphene which used as cathode of the lithium-sulfur battery. <b>2018</b> , 433, 10-15	34
968	The Role of Metal Disulfide Interlayer in Li-S Batteries. <b>2018</b> , 122, 1014-1023	36
967	Superior lithium-ion storage performances of carbonaceous microspheres with high electrical conductivity and uniform distribution of Fe and TiO ultrafine nanocrystals for Li-S batteries. <b>2018</b> , 126, 394-403	10
966	Catalytic Effects in Lithium-Sulfur Batteries: Promoted Sulfur Transformation and Reduced Shuttle Effect. <b>2018</b> , 5, 1700270	471
965	Advanced chemical strategies for lithium-sulfur batteries: A review. <b>2018</b> , 3, 2-19	119
964	Sulfur nanoparticles encapsulated in reduced graphene oxide nanotubes for flexible lithium-sulfur batteries. <b>2018</b> , 11, 1345-1357	66
963	Controlling the Wettability between Freestanding Electrode and Electrolyte for High Energy Density Lithium-Sulfur Batteries. <b>2018</b> , 165, A5006-A5013	27
962	Applications of Phosphorene and Black Phosphorus in Energy Conversion and Storage Devices. <b>2018</b> , 8, 1702093	272
961	Hollow polypyrrole @ MnO <sub>2</sub> spheres as nano-sulfur hosts for improved lithium-sulfur batteries. <b>2018</b> , 260, 912-920	50
960	PEO-Linked MoS <sub>2</sub> /Graphene Nanocomposites with 2D Polar/Nonpolar Amphoteric Surfaces as Sulfur Hosts for High-Performance Li-S Batteries. <b>2018</b> , 6, 974-982	29
959	Homogeneous Sulfur-Cobalt Sulfide Nanocomposites as Lithium-Sulfur Battery Cathodes with Enhanced Reaction Kinetics. <b>2018</b> , 1, 167-172	22
958	Beyond lithium ion batteries: Higher energy density battery systems based on lithium metal anodes. <b>2018</b> , 12, 161-175	284
957	A highly efficient double-hierarchical sulfur host for advanced lithium-sulfur batteries. <b>2018</b> , 9, 666-675	81

956	Rational integration of hierarchical structural CoS <sub>1.097</sub> nanosheets/reduced graphene oxide nanocomposites with enhanced electrocatalytic performance for triiodide reduction. <b>2018</b> , 126, 514-521	17
955	Long-chain solid organic polysulfide cathode for high-capacity secondary lithium batteries. <b>2018</b> , 12, 30-36	20
954	Tubular titanium oxide/reduced graphene oxide-sulfur composite for improved performance of lithium sulfur batteries. <b>2018</b> , 128, 63-69	35
953	Synthesis and electrochemical analysis of electrode prepared from zeolitic imidazolate framework (ZIF)-67/graphene composite for lithium sulfur cells. <b>2018</b> , 259, 1021-1029	32
952	Multifunctional second barrier layers for lithium-sulfur batteries. <b>2018</b> , 2, 235-252	27
951	Inhibiting polysulfides diffusion of lithium-sulfur batteries using an acetylene black-CoS <sub>2</sub> modified separator: Mechanism research and performance improvement. <b>2018</b> , 427, 242-252	58
950	Polysulfide immobilization and conversion on a conductive polar MoC@MoO <sub>x</sub> material for lithium-sulfur batteries. <b>2018</b> , 10, 56-61	132
949	Recent Advances in Applying Vulcanization/Inverse Vulcanization Methods to Achieve High-Performance Sulfur-Containing Polymer Cathode Materials for LiS Batteries. <b>2018</b> , 2, 1800156	42
948	The facile synthesis and enhanced lithium-sulfur battery performance of an amorphous cobalt boride (Co <sub>2</sub> B)@graphene composite cathode. <b>2018</b> , 6, 24045-24049	39
947	Coherent TiO/BaTiO heterostructure as a functional reservoir and promoter for polysulfide intermediates. <b>2018</b> , 54, 12250-12253	36
946	Self-supporting TiCT foam/S cathodes with high sulfur loading for high-energy-density lithium-sulfur batteries. <b>2018</b> , 10, 22954-22962	33
945	Polyvinylchloride-derived N, S co-doped carbon as an efficient sulfur host for high-performance Li-S batteries.. <b>2018</b> , 8, 37811-37816	6
944	A rechargeable metal-free full-liquid sulfur-bromine battery for sustainable energy storage. <b>2018</b> , 6, 20737-20745	5
943	A functional separator coated with sulfonated metal-organic framework/Nafion hybrids for LiS batteries. <b>2018</b> , 6, 24971-24978	59
942	Metal-based nanostructured materials for advanced lithium-sulfur batteries. <b>2018</b> , 6, 23127-23168	128
941	Multi-functional nanowall arrays with unrestricted Li <sup>+</sup> transport channels and an integrated conductive network for high-area-capacity LiS batteries. <b>2018</b> , 6, 22958-22965	25
940	Large-Scale Production of MOF-Derived Coatings for Functional Interlayers in High-Performance LiS Batteries. <b>2018</b> , 1, 6986-6991	14
939	Recent Advances in Energy Chemical Engineering of Next-Generation Lithium Batteries. <b>2018</b> , 4, 831-847	116



938	Self-Supported FeCoS Nanotube Arrays as Binder-Free Cathodes for Lithium-Sulfur Batteries. <b>2018</b> , 10, 43707-43715	53
937	Insight of Enhanced Redox Chemistry for Porous MoO <sub>3</sub> Carbon-Derived Framework as Polysulfide Reservoir in Lithium-Sulfur Batteries. <b>2018</b> , 10, 42286-42293	23
936	Ultrasensitive immunoassay of glycoprotein 125 (CA 125) in untreated human plasma samples using poly (CTAB-chitosan) doped with silver nanoparticles. <b>2018</b> , 120, 2048-2064	25
935	Electrocatalysis in Lithium Sulfur Batteries under Lean Electrolyte Conditions. <b>2018</b> , 130, 15775-15778	55
934	Deciphering the Modulation Essence of p Bands in Co-Based Compounds on Li-S Chemistry. <b>2018</b> , 2, 2681-2693	241
933	Conductive and Polar Titanium Boride as a Sulfur Host for Advanced Lithium Sulfur Batteries. <b>2018</b> , 30, 6969-6977	75
932	A Review of Functional Binders in Lithium Sulfur Batteries. <b>2018</b> , 8, 1802107	203
931	A high performance lithium-ion-sulfur battery with a free-standing carbon matrix supported Li-rich alloy anode. <b>2018</b> , 9, 8829-8835	24
930	Electrocatalysis in Lithium Sulfur Batteries under Lean Electrolyte Conditions. <b>2018</b> , 57, 15549-15552	130
929	Facile preparation of ultrafine TiO <sub>2</sub> nanoparticle-embedded porous carbon for high areal capacity lithium-sulfur batteries. <b>2018</b> , 6, 20083-20092	26
928	Three-dimensional hierarchical NiSe nanorod array as binder/carbon-free electrode for high-areal-capacity Na storage. <b>2018</b> , 10, 18942-18948	26
927	Exceptional catalytic effects of black phosphorus quantum dots in shuttling-free lithium sulfur batteries. <b>2018</b> , 9, 4164	210
926	A Li <sub>2</sub> S-Based Sacrificial Layer for Stable Operation of Lithium-Sulfur Batteries. <b>2018</b> , 6, 2210-2219	4
925	Flexible and stable high-energy lithium-sulfur full batteries with only 100% oversized lithium. <b>2018</b> , 9, 4480	129
924	CoO-NP embedded mesoporous carbon rod with enhanced electrocatalytic conversion in lithium-sulfur battery. <b>2018</b> , 8, 16133	18
923	Catalytic Activity of CoX (X = S, P, O) and Its Dependency on Nanostructure/Chemical Composition in Lithium Sulfur Batteries. <b>2018</b> , 1, 7014-7021	34
922	Multifunctional Heterostructures for Polysulfide Suppression in High-Performance Lithium-Sulfur Cathode. <b>2018</b> , 14, e1803134	57
921	Synergistic stabilizing lithium sulfur battery via nanocoating polypyrrole on cobalt sulfide nanobox. <b>2018</b> , 405, 51-60	35



920	NickelCobalt Double Hydroxide as a Multifunctional Mediator for Ultrahigh-Rate and Ultralong-Life LiS Batteries. <b>2018</b> , 8, 1802431	64
919	2D MoN-VN Heterostructure To Regulate Polysulfides for Highly Efficient Lithium-Sulfur Batteries. <b>2018</b> , 130, 16945-16949	10
918	2D MoN-VN Heterostructure To Regulate Polysulfides for Highly Efficient Lithium-Sulfur Batteries. <b>2018</b> , 57, 16703-16707	224
917	Electrocatalysis of Ruthenium Nanoparticles-Decorated Hollow Carbon Spheres for the Conversion of LiS/LiS in Lithium-Sulfur Batteries. <b>2018</b> , 10, 38853-38861	21
916	Recent advances of polar transition-metal sulfides host materials for advanced lithiumSulfur batteries. <b>2018</b> , 11, 1840010	22
915	In-situ PECVD-enabled graphene-V2O3 hybrid host for lithiumSulfur batteries. <b>2018</b> , 53, 432-439	76
914	Multi-functional CoS2-N-C porous carbon composite derived from metal-organic frameworks for high performance lithium-sulfur batteries. <b>2018</b> , 289, 94-103	43
913	Double-Shelled Phosphorus and Nitrogen Codoped Carbon Nanospheres as Efficient Polysulfide Mediator for High-Performance Lithium-Sulfur Batteries. <b>2018</b> , 5, 1800621	65
912	Boosting the Electrochemical Performance of Li-S Batteries with a Dual Polysulfides Confinement Strategy. <b>2018</b> , 14, e1802516	47
911	Biotemplating Growth of Nepenthes-like N-Doped Graphene as a Bifunctional Polysulfide Scavenger for Li-S Batteries. <b>2018</b> , 12, 10240-10250	104
910	Unexpected Effect of Electrode Architecture on High-Performance Lithium-Sulfur Batteries. <b>2018</b> , 10, 33269-33275	6
909	Enhanced Electrochemical Kinetics and Polysulfide Traps of Indium Nitride for Highly Stable Lithium-Sulfur Batteries. <b>2018</b> , 12, 9578-9586	146
908	Recent progress in metalOrganic frameworks for lithiumSulfur batteries. <b>2018</b> , 155, 464-484	48
907	Chinese knot-like electrode design for advanced Li-S batteries. <b>2018</b> , 53, 354-361	46
906	Advances in Polar Materials for LithiumSulfur Batteries. <b>2018</b> , 28, 1707520	181
905	Progress on the Critical Parameters for LithiumSulfur Batteries to be Practically Viable. <b>2018</b> , 28, 1801188	257
904	Double-Shelled NiO-NiCo2O4 Heterostructure@Carbon Hollow Nanocages as an Efficient Sulfur Host for Advanced LithiumSulfur Batteries. <b>2018</b> , 8, 1800709	184
903	Metal oxide nanoprism-arrays assembled in N-doped carbon foamy nanoplates that have efficient polysulfide-retention for ultralong-cycle-life lithiumSulfur batteries. <b>2018</b> , 6, 11260-11269	21

902	A defective MOF architecture threaded by interlaced carbon nanotubes for high-cycling lithium-sulfur batteries.. <b>2018</b> , 8, 18604-18612	35
901	Ultra-small self-discharge and stable lithium-sulfur batteries achieved by synergetic effects of multicomponent sandwich-type composite interlayer. <b>2018</b> , 50, 367-375	89
900	MOF-derived Cobalt Sulfide Grown on 3D Graphene Foam as an Efficient Sulfur Host for Long-Life Lithium-Sulfur Batteries. <b>2018</b> , 4, 36-43	117
899	Atomic Iron Catalysis of Polysulfide Conversion in Lithium-Sulfur Batteries. <b>2018</b> , 10, 19311-19317	103
898	Stringed Tube on cube/nanohybrids as compact cathode matrix for high-loading and lean-electrolyte lithium-sulfur batteries. <b>2018</b> , 11, 2372-2381	193
897	Nickel-Iron Layered Double Hydroxide Hollow Polyhedrons as a Superior Sulfur Host for Lithium-Sulfur Batteries. <b>2018</b> , 57, 10944-10948	205
896	A polymeric nanocomposite interlayer as ion-transport-regulator for trapping polysulfides and stabilizing lithium metal. <b>2018</b> , 15, 447-457	21
895	Pomegranate-like microclusters organized by ultrafine Co nanoparticles@nitrogen-doped carbon subunits as sulfur hosts for long-life lithium-sulfur batteries. <b>2018</b> , 6, 14178-14187	63
894	Insight into the Function Mechanism of the Carbon Interlayer in Lithium-Sulfur Batteries. <b>2018</b> , 165, A1880-A1885	185
893	Structural Design of Lithium-Sulfur Batteries: From Fundamental Research to Practical Application. <b>2018</b> , 1, 239-293	197
892	Graphene and its derivatives in lithium-sulfur batteries. <b>2018</b> , 9, 319-335	96
891	A heterogenized Ni-doped zeolitic imidazolate framework to guide efficient trapping and catalytic conversion of polysulfides for greatly improved lithium-sulfur batteries. <b>2018</b> , 6, 13593-13598	43
890	Nickel-Iron Layered Double Hydroxide Hollow Polyhedrons as a Superior Sulfur Host for Lithium-Sulfur Batteries. <b>2018</b> , 130, 11110-11114	23
889	Synchronous immobilization and conversion of polysulfides on a VO <sub>2</sub> /N binary host targeting high sulfur load Li-S batteries. <b>2018</b> , 11, 2620-2630	327
888	Improving the electrochemical property of Li-S batteries by using CoS <sub>2</sub> as substrate materials. <b>2018</b> , 44, 17340-17344	10
887	Regulating the polysulfide redox conversion by iron phosphide nanocrystals for high-rate and ultrastable lithium-sulfur battery. <b>2018</b> , 51, 340-348	202
886	Thin-Layered Molybdenum Disulfide Nanoparticles as an Effective Polysulfide Mediator in Lithium-Sulfur Batteries. <b>2018</b> , 10, 23122-23130	31
885	A novel class of functional additives for cyclability enhancement of the sulfur cathode in lithium sulfur batteries. <b>2018</b> , 5, 2013-2017	11

- 884 Inverse Capacity Growth and Pocket Effect in SnS Semifilled Carbon Nanotube Anode. **2018**, 12, 8037-8047 61
- 883 Novel Non-Carbon Sulfur Hosts Based on Strong Chemisorption for Lithium-Sulfur Batteries. **2018**, 14, e1801987 48
- 882 Promoting polysulfide redox reactions and improving electronic conductivity in lithium-sulfur batteries via hierarchical cathode materials of graphene-wrapped porous TiO<sub>2</sub> microspheres with exposed (001) facets. **2018**, 6, 16574-16582 40
- 881 Synthesis and characterization of electrospun molybdenum dioxide-carbon nanofibers as sulfur matrix additives for rechargeable lithium-sulfur battery applications. **2018**, 9, 262-270 19
- 880 Ultrathin HfO<sub>2</sub>-modified carbon nanotube films as efficient polysulfide barriers for Li-S batteries. **2018**, 139, 896-905 18
- 879 Conductive molybdenum carbide as the polysulfide reservoir for lithium-sulfur batteries. **2018**, 6, 17142-17147 28
- 878 In Situ Formation of Copper-Based Hosts Embedded within 3D N-Doped Hierarchically Porous Carbon Networks for Ultralong Cycle Lithium-Sulfur Batteries. **2018**, 28, 1804520 66
- 877 Theoretical Investigation of 2D Conductive Microporous Coordination Polymers as Li-S Battery Cathode with Ultrahigh Energy Density. **2018**, 8, 1801823 45
- 876 CoO/Co-Activated Porous Carbon Cloth Cathode for High Performance Li-S Batteries. **2018**, 11, 2695-2702 43
- 875 High Capacity All-Solid-State Lithium Batteries Enabled by Pyrite-Sulfur Composites. **2018**, 8, 1801462 60
- 874 SnS/TiO<sub>2</sub> nanohybrids chemically bonded on nitrogen-doped graphene for lithium-sulfur batteries: synergy of vacancy defects and heterostructures. **2018**, 10, 15505-15512 77
- 873 Self-Assembled Close-Packed MnO Nanoparticles Anchored on a Polyethylene Separator for Lithium-Sulfur Batteries. **2018**, 10, 26274-26282 64
- 872 Heterogeneous/Homogeneous Mediators for High-Energy-Density Lithium-Sulfur Batteries: Progress and Prospects. **2018**, 28, 1707536 197
- 871 Sulfur-polyaniline coated mesoporous carbon composite in combination with carbon nanotubes interlayer as a superior cathode assembly for high capacity lithium-sulfur cells. **2018**, 458, 751-761 18
- 870 Recent progress on confinement of polysulfides through physical and chemical methods. **2018**, 27, 1555-1565 89
- 869 3D CNTs/Graphene-S-AlNi Cathodes for High-Sulfur-Loading and Long-Life Lithium-Sulfur Batteries. **2018**, 5, 1800026 41
- 868 Long-Life Lithium-Sulfur Batteries with a Bifunctional Cathode Substrate Configured with Boron Carbide Nanowires. **2018**, 30, e1804149 89
- 867 Multifunctionality of Carbon-based Frameworks in Lithium Sulfur Batteries. **2018**, 1, 403-432 27

866	Three-dimensional spongy framework as superlyophilic, strongly absorbing, and electrocatalytic polysulfide reservoir layer for high-rate and long-cycling lithium-sulfur batteries. <b>2018</b> , 11, 6436-6446	29
865	Advances in Cathode Materials for High-Performance Lithium-Sulfur Batteries. <b>2018</b> , 6, 151-198	64
864	Three-dimensional TiO <sub>2</sub> -B nanotubes/carbon nanotubes intertwined network as sulfur hosts for high performance lithium-sulfur batteries. <b>2018</b> , 400, 23-30	30
863	Enhanced polysulfide redox kinetics electro-catalyzed by cobalt phthalocyanine for advanced lithium-sulfur batteries. <b>2018</b> , 6, 17132-17141	34
862	Electrocatalysis on Separator Modified by Molybdenum Trioxide Nanobelts for Lithium-Sulfur Batteries. <b>2018</b> , 5, 1800243	54
861	Functional Carbons Remedy the Shuttling of Polysulfides in Lithium-Sulfur Batteries: Confining, Trapping, Blocking, and Breaking up. <b>2018</b> , 28, 1800508	117
860	Sulfur Hosts against the Shuttle Effect. <b>2018</b> , 2, 1700345	95
859	Rational Design of a Dual-Function Hybrid Cathode Substrate for Lithium-Sulfur Batteries. <b>2018</b> , 8, 1801014	77
858	Vertical Co <sub>9</sub> S <sub>8</sub> hollow nanowall arrays grown on a Celgard separator as a multifunctional polysulfide barrier for high-performance Li-S batteries. <b>2018</b> , 11, 2560-2568	365
857	A robust sulfur host with dual lithium polysulfide immobilization mechanism for long cycle life and high capacity Li-S batteries. <b>2019</b> , 16, 344-353	109
856	Sulfur/nickel ferrite composite as cathode with high-volumetric-capacity for lithium-sulfur battery. <b>2019</b> , 62, 74-86	68
855	LiNi <sub>0.8</sub> Co <sub>0.15</sub> Al <sub>0.05</sub> O <sub>2</sub> as both a trapper and accelerator of polysulfides for lithium-sulfur batteries. <b>2019</b> , 17, 111-117	45
854	Combining theory and experiment in lithium-sulfur batteries: Current progress and future perspectives. <b>2019</b> , 22, 142-158	217
853	An ultrathin and continuous Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> coated carbon nanofiber interlayer for high rate lithium sulfur battery. <b>2019</b> , 31, 19-26	53
852	Modeling and theoretical design of next-generation lithium metal batteries. <b>2019</b> , 16, 169-193	53
851	Carbon@titanium nitride dual shell nanospheres as multi-functional hosts for lithium sulfur batteries. <b>2019</b> , 16, 228-235	200
850	Freestanding Mo <sub>2</sub> C-decorating N-doped carbon nanofibers as 3D current collector for ultra-stable Li-S batteries. <b>2019</b> , 18, 375-381	69
849	Ultra-thin Fe <sub>3</sub> C nanosheets promote the adsorption and conversion of polysulfides in lithium-sulfur batteries. <b>2019</b> , 18, 338-348	95

848	Insight into the Anchoring and Catalytic Effects of VO and VS Nanosheets as Sulfur Cathode Hosts for Li-S Batteries. <b>2019</b> , 12, 4671-4678	26
847	Long-life LiS batteries based on enabling the immobilization and catalytic conversion of polysulfides. <b>2019</b> , 7, 21747-21758	25
846	Nitrogen-Doped Porous Carbon Networks with Active Fe-N Sites to Enhance Catalytic Conversion of Polysulfides in Lithium-Sulfur Batteries. <b>2019</b> , 11, 31860-31868	29
845	Nb O /RGO Nanocomposite Modified Separators with Robust Polysulfide Traps and Catalytic Centers for Boosting Performance of Lithium-Sulfur Batteries. <b>2019</b> , 15, e1902363	54
844	Chelation-assisted formation of multi-yolk-shell Co <sub>4</sub> N@carbon nanoboxes for self-discharge-suppressed high-performance LiS <sub>2</sub> batteries. <b>2019</b> , 7, 20302-20309	22
843	Sulfur encapsulation by MOF-derived CoS <sub>2</sub> embedded in carbon hosts for high-performance LiS batteries. <b>2019</b> , 7, 21128-21139	48
842	A nanostructured ferroelectric lithium tantalate as polysulfide immobilizer and promoter for improved lithium-sulfur batteries. <b>2019</b> , 807, 151672	8
841	Ni(OH) <sub>2</sub> @hollow carbon spheres/sulfur composites as cathode materials for high-performance LiS batteries. <b>2019</b> , 30, 17155-17163	2
840	Programmed Design of a Lithium-Sulfur Battery Cathode by Integrating Functional Units. <b>2019</b> , 6, 1900711	31
839	Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> nanowire array as a sulfur host for high performance lithium sulfur battery. <b>2019</b> , 805, 873-879	11
838	In Situ Electrochemical Mapping of Lithium-Sulfur Battery Interfaces Using AFM-SECM. <i>Nano Letters</i> , <b>2019</b> , 19, 5229-5236	11.5 26
837	Boosting High-Rate Li-S Batteries by an MOF-Derived Catalytic Electrode with a Layer-by-Layer Structure. <b>2019</b> , 6, 1802362	55
836	Sandwich-Like Ultrathin TiS <sub>2</sub> Nanosheets Confined within N, S Codoped Porous Carbon as an Effective Polysulfide Promoter in Lithium-Sulfur Batteries. <b>2019</b> , 9, 1901872	119
835	Lithium-Anode Protection in Lithium-Sulfur Batteries. <b>2019</b> , 1, 693-704	65
834	Duplex trapping and charge transfer with polysulfides by a diketopyrrolopyrrole-based organic framework for high-performance lithium-sulfur batteries. <b>2019</b> , 7, 18100-18108	41
833	Recent advances in cathode materials for rechargeable lithium-sulfur batteries. <b>2019</b> , 11, 15418-15439	78
832	Interfacial Charge Field in Hierarchical Yolk-Shell Nanocapsule Enables Efficient Immobilization and Catalysis of Polysulfides Conversion. <b>2019</b> , 9, 1901667	47
831	Interfacial Molecule Mediators in Cathodes for Advanced Li-S Batteries. <b>2019</b> , 11, 29978-29984	13

830	Interfacial design for lithium-sulfur batteries: From liquid to solid. <b>2019</b> , 1, 100002	80
829	Propelling the polysulfide phase transformation of lithium-sulfur battery by VO <sub>2</sub> -rGO. <b>2019</b> , 804, 549-553	7
828	Superior cycling life of Li-S batteries with high sulfur loading enabled by a bifunctional layered-MoO <sub>3</sub> cathode. <b>2019</b> , 436, 226840	18
827	Highly Puffed CoS/Carbon Nanofibers: A Functionalized S Carrier for Superior Li-S Batteries. <b>2019</b> , 11, 26798-26806	29
826	A Class of Catalysts of BiOX (X = Cl, Br, I) for Anchoring Polysulfides and Accelerating Redox Reaction in Lithium Sulfur Batteries. <b>2019</b> , 13, 13109-13115	63
825	Stability analysis of switched positive nonlinear systems: an invariant ray approach. <b>2019</b> , 62, 1	1
824	A Conductive/Ferroelectric Hybrid Interlayer for Highly Improved Trapping of Polysulfides in Lithium-Sulfur Batteries. <b>2019</b> , 6, 1900984	8
823	A Molecular-Cage Strategy Enabling Efficient Chemisorption-Electrocatalytic Interface in Nanostructured Li <sub>2</sub> S Cathode for Li Metal-Free Rechargeable Cells with High Energy. <b>2019</b> , 29, 1905986	33
822	Redox Mediator: A New Strategy in Designing Cathode for Prompting Redox Process of Li-S Batteries. <b>2019</b> , 6, 1900958	27
821	Voxer platform for creating, customizing, and sharing scientific visualizations. <b>2019</b> , 22, 1161-1176	1
820	Advanced Li S/Si Full Battery Enabled by TiN Polysulfide Immobilizer. <b>2019</b> , 15, e1902377	21
819	Metal Coated Polypropylene Separator with Enhanced Surface Wettability for High Capacity Lithium Metal Batteries. <b>2019</b> , 9, 16795	13
818	Freestanding cellulose paper-derived carbon/Fe/Fe <sub>3</sub> C with enhanced electrochemical kinetics for high-performance lithium-sulfur batteries. <b>2019</b> , 155, 353-360	26
817	A General Atomic Surface Modification Strategy for Improving Anchoring and Electrocatalysis Behavior of TiCT MXene in Lithium-Sulfur Batteries. <b>2019</b> , 13, 11078-11086	129
816	Flexible and High-Loading Lithium-Sulfur Batteries Enabled by Integrated Three-In-One Fibrous Membranes. <b>2019</b> , 9, 1902001	71
815	Investigation of the Nanocrystal CoS Embedded in 3D Honeycomb-like Graphitic Carbon with a Synergistic Effect for High-Performance Lithium Sulfur Batteries. <b>2019</b> , 11, 33987-33999	51
814	Synergetic enhancement of polysulfide chemisorption and electrocatalysis over bicontinuous MoN@N-rich carbon porous nano-octahedra for Li-S batteries. <b>2019</b> , 7, 21934-21943	22
813	Construction of Electrocatalytic and Heat-Resistant Self-Supporting Electrodes for High-Performance Lithium-Sulfur Batteries. <b>2019</b> , 11, 78	20

812	Improved performance of CoS <sub>2</sub> nanoparticles encapsulated in carbon micro-polyhedron for propelling redox reaction of polysulfide. <b>2019</b> , 324, 134899	2
811	Self-assembled CdS quantum dots in carbon nanotubes: induced polysulfide trapping and redox kinetics enhancement for improved lithium-sulfur battery performance. <b>2019</b> , 7, 806-815	42
810	Die wiederaufladbare Aluminiumbatterie: Möglichkeiten und Herausforderungen. <b>2019</b> , 131, 12104-12124	15
809	Solvent-free nanocasting toward universal synthesis of ordered mesoporous transition metal sulfide@N-doped carbon composites for electrochemical applications. <b>2019</b> , 12, 2250-2258	18
808	Sulfur Redox Reactions at Working Interfaces in Lithium-Sulfur Batteries: A Perspective. <b>2019</b> , 6, 1802046	95
807	Graphene-based Fe-coordinated framework porphyrin as an interlayer for lithium-sulfur batteries. <b>2019</b> , 3, 615-619	33
806	Secure communication in multigroup multicasting cell-free massive MIMO networks with active spoofing attack. <b>2019</b> , 55, 96-98	13
805	Cobalt-Doped SnS <sub>2</sub> with Dual Active Centers of Synergistic Absorption-Catalysis Effect for High-S Loading Li-S Batteries. <b>2019</b> , 29, 1806724	139
804	The Rechargeable Aluminum Battery: Opportunities and Challenges. <b>2019</b> , 58, 11978-11996	168
803	Two-dimensional materials for advanced Li-S batteries. <b>2019</b> , 22, 284-310	69
802	Ultrahigh sulfur loading in ZnS <sub>1-x</sub> /rGO through in situ oxidation-refilling route for high-performance Li-S batteries. <b>2019</b> , 414, 453-459	21
801	Rational Design of TiO <sub>2</sub> -TiO Heterostructure/Polypyrrole as a Multifunctional Sulfur Host for Advanced Lithium-Sulfur Batteries. <b>2019</b> , 11, 5055-5063	69
800	Freestanding 1T MoS <sub>2</sub> /graphene heterostructures as a highly efficient electrocatalyst for lithium polysulfides in Li-S batteries. <b>2019</b> , 12, 344-350	355
799	3D pomegranate-like TiN@graphene composites with electrochemical reaction chambers as sulfur hosts for ultralong-life lithium-sulfur batteries. <b>2019</b> , 4, 531-539	35
798	Study on the effect of transition metal sulfide in lithium-sulfur battery. <b>2019</b> , 6, 477-481	25
797	Manganese cluster-based MOF as efficient polysulfide-trapping platform for high-performance lithium-sulfur batteries. <b>2019</b> , 7, 2838-2844	46
796	The combination of intercalation and conversion reactions to improve the volumetric capacity of the cathode in Li-S batteries. <b>2019</b> , 7, 3618-3623	16
795	Battery Separators Functionalized with Edge-Rich MoS <sub>2</sub> /C Hollow Microspheres for the Uniform Deposition of Li-S in High-Performance Lithium-Sulfur Batteries. <b>2019</b> , 11, 43	37



794	Constructing Patch-Ni-Shelled Pt@Ni Nanoparticles within Confined Nanoreactors for Catalytic Oxidation of Insoluble Polysulfides in Li-S Batteries. <b>2019</b> , 15, e1902431	40
793	In-operando imaging of polysulfide catholytes for LiS batteries and implications for kinetics and mechanical stability. <b>2019</b> , 434, 226727	7
792	Combined High Catalytic Activity and Efficient Polar Tubular Nanostructure in Urchin-Like Metallic NiCo <sub>2</sub> Se <sub>4</sub> for High-Performance LithiumSulfur Batteries. <b>2019</b> , 29, 1903842	85
791	Enhanced rate capability due to highly active Ta <sub>2</sub> O <sub>5</sub> catalysts for lithium sulfur batteries. <b>2019</b> , 435, 226707	15
790	Metal-Organic Frameworks/Conducting Polymer Hydrogel Integrated Three-Dimensional Free-Standing Monoliths as Ultrahigh Loading Li-S Battery Electrodes. <i>Nano Letters</i> , <b>2019</b> , 19, 4391-4399 <sup>11.5</sup>	84
789	Graphene-Based Mesoporous SnO <sub>2</sub> Nanosheets as Multifunctional Hosts for High-Performance LithiumSulfur Batteries. <b>2019</b> , 2, 5009-5018	13
788	Blocking Polysulfide with CoB@CNT via "Synergetic Adsorptive Effect" toward Ultrahigh-Rate Capability and Robust Lithium-Sulfur Battery. <b>2019</b> , 13, 6742-6750	69
787	Porous honeycomb-like C <sub>3</sub> N <sub>4</sub> /rGO composite as host for high performance Li-S batteries. <b>2019</b> , 62, 1265-1274	14
786	Metallic NiSe <sub>2</sub> nanoarrays towards ultralong life and fast Li <sub>2</sub> S oxidation kinetics of LiS batteries. <b>2019</b> , 7, 15302-15308	37
785	Hollow quasi-polyhedron structure of NiCoP with strong constraint sulfur effect for lithium sulfur battery. <b>2019</b> , 847, 113187	16
784	A Comprehensive Understanding of LithiumSulfur Battery Technology. <b>2019</b> , 29, 1901730	156
783	Current-density dependence of Li <sub>2</sub> S/Li <sub>2</sub> S <sub>2</sub> growth in lithiumSulfur batteries. <b>2019</b> , 12, 2976-2982	67
782	A review on the status and challenges of electrocatalysts in lithium-sulfur batteries. <b>2019</b> , 20, 55-70	226
781	A Comprehensive Review of Materials with Catalytic Effects in LiS Batteries: Enhanced Redox Kinetics. <b>2019</b> , 131, 18920-18931	49
780	A Comprehensive Review of Materials with Catalytic Effects in Li-S Batteries: Enhanced Redox Kinetics. <b>2019</b> , 58, 18746-18757	221
779	Propelling Polysulfide Conversion by Defect-Rich MoS Nanosheets for High-Performance Lithium-Sulfur Batteries. <b>2019</b> , 11, 20788-20795	63
778	Nanostructures and Nanomaterials for Lithium Metal Batteries. <b>2019</b> , 159-214	
777	Metal multiple-sulfides with nitrogen doped carbon layer for high performance lithium-sulfur batteries. <b>2019</b> , 798, 531-539	5



776	In-situ decoration of MOF-derived carbon on nitrogen-doped ultrathin MXene nanosheets to multifunctionalize separators for stable Li-S batteries. <b>2019</b> , 373, 1309-1318	122
775	Silkworm Excrement Derived In-situ Co-doped Nanoporous Carbon as Confining Sulfur Host for Lithium Sulfur Batteries. <b>2019</b> , 4, 5678-5685	3
774	Promoting the Transformation of Li S to Li <sub>2</sub> S: Significantly Increasing Utilization of Active Materials for High-Sulfur-Loading Li-S Batteries. <b>2019</b> , 31, e1901220	186
773	Multiple Covalent Triazine Frameworks with Strong Polysulfide Chemisorption for Enhanced Lithium-Sulfur Batteries. <b>2019</b> , 6, 2777-2781	15
772	Hydrophilic tannic acid-modified WS <sub>2</sub> nanosheets for enhanced polysulfide conversion in aqueous media. <b>2019</b> , 1, 015005	
771	One dimensional nanostructures contribute better Li <sub>2</sub> S and Li <sub>2</sub> Se batteries: Progress, challenges and perspectives. <b>2019</b> , 23, 190-224	55
770	Schwefel-basierte Elektroden mit Mehrelektronenreaktionen für Raumtemperatur-Natriumionenspeicherung. <b>2019</b> , 131, 18490-18504	8
769	Sulfur-deficient MoS <sub>2-x</sub> promoted lithium polysulfides conversion in lithium-sulfur battery: A first-principles study. <b>2019</b> , 487, 452-463	36
768	Selenium Edge as a Selective Anchoring Site for Lithium-Sulfur Batteries with MoSe/Graphene-Based Cathodes. <b>2019</b> , 11, 19986-19993	36
767	Waste to Wealth: Exhausted Nitrogen-Doped Mesoporous Carbon/MgO Desulfurizers Turned to High-Sulfur-Loading Composite Cathodes for Li-S Batteries. <b>2019</b> , 11, 19096-19103	14
766	Current Status and Future Prospects of Metal-Sulfur Batteries. <b>2019</b> , 31, e1901125	237
765	Sulfur-Based Electrodes that Function via Multielectron Reactions for Room-Temperature Sodium-Ion Storage. <b>2019</b> , 58, 18324-18337	46
764	Rational Fabrication of Nitrogen and Sulfur Codoped Carbon Nanotubes/MoS for High-Performance Lithium-Sulfur Batteries. <b>2019</b> , 12, 3602-3614	27
763	Nanostructures and Nanomaterials for Batteries. <b>2019</b> ,	9
762	Improving electrochemical properties of Lithium-Sulfur batteries by adding a catalyst-embedded interlayer. <b>2019</b> , 315, 33-40	14
761	Manipulating the redox kinetics of Li <sub>2</sub> S chemistry by porous hollow cobalt-B, N codoped-graphitic carbon polyhedrons for high performance lithium-sulfur batteries. <b>2019</b> , 149, 564-571	28
760	A polar TiO <sub>2</sub> /MWCNT coating on a separator significantly suppress the shuttle effect in a lithium-sulfur battery. <b>2019</b> , 310, 1-12	31
759	Bifunctional Binder with Nucleophilic Lithium Polysulfide Immobilization Ability for High-Loading, High-Thickness Cathodes in Lithium-Sulfur Batteries. <b>2019</b> , 11, 17393-17399	16

758	Surface chemistry of tube-in-tube nanostructured cuprous sulfide@void@carbon in catalytical polysulfide conversion. <b>2019</b> , 7, 12815-12824	4
757	Enabling immobilization and conversion of polysulfides through a nitrogen-doped carbon nanotubes/ultrathin MoS <sub>2</sub> nanosheet core-shell architecture for lithium-sulfur batteries. <b>2019</b> , 7, 13103-13112	78
756	Integrated Polypyrrole@Sulfur@Graphene Aerogel 3D Architecture via Advanced Vapor Polymerization for High-Performance Lithium-Sulfur Batteries. <b>2019</b> , 11, 18448-18455	39
755	Dithiothreitol-assisted polysulfide reduction in the interlayer of lithium-sulfur batteries: a first-principles study. <b>2019</b> , 21, 16435-16443	5
754	Oxygen Deficiency Driven Conversion of Polysulfide by Electrocatalysis: MoO <sub>3-x</sub> Nanobelts for an Improved Lithium-Sulfur Battery Cathode. <b>2019</b> , 5, 926-931	22
753	Dual effects of the carbon fibers/Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> interlayer on retarding shuttle of polysulfides for stable Lithium-Sulfur batteries. <b>2019</b> , 312, 149-156	37
752	Status and prospects of SexSy cathodes for lithium/sodium storage. <b>2019</b> , 6, 1326-1340	23
751	Double-walled N-doped carbon@NiCo <sub>2</sub> S <sub>4</sub> hollow capsules as SeS <sub>2</sub> hosts for advanced LiSeS <sub>2</sub> batteries. <b>2019</b> , 7, 12276-12282	30
750	Hierarchical flower-like cobalt phosphosulfide derived from Prussian blue analogue as an efficient polysulfides adsorbent for long-life lithium-sulfur batteries. <b>2019</b> , 12, 1115-1120	18
749	Suppressed polysulfide shuttling and improved Li <sup>+</sup> transport in Li-S batteries enabled by NbN modified PP separator. <b>2019</b> , 423, 98-105	39
748	Rational design of Co <sub>9</sub> S <sub>8</sub> /CoO heterostructures with well-defined interfaces for lithium sulfur batteries: A study of synergistic adsorption-electrocatalysis function. <b>2019</b> , 60, 332-339	102
747	Reviving catalytic activity of nitrides by the doping of the inert surface layer to promote polysulfide conversion in lithium-sulfur batteries. <b>2019</b> , 60, 305-311	77
746	The recent research status quo and the prospect of electrolytes for lithium sulfur batteries. <b>2019</b> , 369, 874-897	53
745	Synergistic Regulation of Polysulfides Conversion and Deposition by MOF-Derived Hierarchically Ordered Carbonaceous Composite for High-Energy Lithium-Sulfur Batteries. <b>2019</b> , 29, 1900875	65
744	Simultaneous Immobilization and Conversion of Polysulfides on Co <sub>3</sub> O <sub>4</sub> @CoN Heterostructured Mediators toward High-Performance Lithium-Sulfur Batteries. <b>2019</b> , 2, 2570-2578	13
743	Structural Engineering of Cathode Materials for Lithium-Sulfur Batteries. <b>2019</b> , 1-28	1
742	Hierarchically Designed CNF/SCu/CNF Nonwoven Electrode as Free-Standing Cathode for Lithium-Sulfur Batteries. <b>2019</b> , 2, 560-567	8
741	Highly Dispersed Catalytic CoS among a Hierarchical Carbon Nanostructure for High-Rate and Long-Life Lithium-Sulfur Batteries. <b>2019</b> , 13, 3982-3991	123

740	Implanting Niobium Carbide into Trichoderma Spore Carbon: a New Advanced Host for Sulfur Cathodes. <b>2019</b> , 31, e1900009	132
739	In Situ Synthesis of Sulfur Host with Chemisorption and Electrocatalytic Capability toward High-Performance Lithium-Sulfur Batteries. <b>2019</b> , 7, 1900015	4
738	Manipulating kinetics of sulfurized polyacrylonitrile with tellurium as eutectic accelerator to prevent polysulfide dissolution in lithium-sulfur battery under dissolution-deposition mechanism. <b>2019</b> , 60, 153-161	64
737	Coral-like reduced graphene oxide/tungsten sulfide hybrid as a cathode host of high performance lithium-sulfur battery. <b>2019</b> , 420, 22-28	18
736	Capture and Catalytic Conversion of Polysulfides by In Situ Built TiO <sub>2</sub> -MXene Heterostructures for Lithium-Sulfur Batteries. <b>2019</b> , 9, 1900219	291
735	3D Hierarchical Porous Graphene-Based Energy Materials: Synthesis, Functionalization, and Application in Energy Storage and Conversion. <b>2019</b> , 2, 332-371	59
734	Intercalation-conversion hybrid cathodes enabling Li-S full-cell architectures with jointly superior gravimetric and volumetric energy densities. <b>2019</b> , 4, 374-382	282
733	Natural chalcopyrite as a sulfur source and its electrochemical performance for lithium-sulfur batteries. <b>2019</b> , 6, 1217-1227	5
732	Role and Potential of Metal Sulfide Catalysts in Lithium-Sulfur Battery Applications. <b>2019</b> , 11, 2373-2387	33
731	High areal capacity flexible sulfur cathode based on multi-functionalized super-aligned carbon nanotubes. <b>2019</b> , 12, 1105-1113	25
730	Electrospun nanostructures for conversion type cathode (S, Se) based lithium and sodium batteries. <b>2019</b> , 7, 11613-11650	41
729	Highly stable lithium-sulfur batteries based on p-n heterojunctions embedded on hollow sheath carbon propelling polysulfides conversion. <b>2019</b> , 7, 9230-9240	43
728	Engineering Rice Husk into a High-Performance Electrode Material through an Ecofriendly Process and Assessing Its Application for Lithium-Ion Sulfur Batteries. <b>2019</b> , 7, 7851-7861	18
727	CoS-interposed and Ketjen black-embedded carbon nanofiber framework as a separator modulation for high performance Li-S batteries. <b>2019</b> , 369, 77-86	48
726	Promoting polythionate intermediates formation by oxygen-deficient manganese oxide hollow nanospheres for high performance lithium-sulfur batteries. <b>2019</b> , 370, 556-564	39
725	Ultrafine TiC MXene Nanodots-Interspersed Nanosheet for High-Energy-Density Lithium-Sulfur Batteries. <b>2019</b> , 13, 3608-3617	158
724	Synergistic Engineering of Defects and Architecture in Binary Metal Chalcogenide toward Fast and Reliable Lithium-Sulfur Batteries. <b>2019</b> , 9, 1900228	121
723	An integrated cathode with bi-functional catalytic effect for excellent-performance lithium-sulfur batteries. <b>2019</b> , 12, 1017-1024	15

722	Rational design of multi-functional CoS@rGO composite for performance enhanced Li-S cathode. <b>2019</b> , 421, 132-138	35
721	Inhibition of polysulfide diffusion in lithium-sulfur batteries: mechanism and improvement strategies. <b>2019</b> , 7, 12381-12413	96
720	Reliable Interlayer Based on Hybrid Nanocomposites and Carbon Nanotubes for Lithium-Sulfur Batteries. <b>2019</b> , 11, 15607-15615	23
719	Co-Fe Mixed Metal Phosphide Nanocubes with Highly Interconnected-Pore Architecture as an Efficient Polysulfide Mediator for Lithium-Sulfur Batteries. <b>2019</b> , 13, 4731-4741	154
718	Boosting redox activity on MXene-induced multifunctional collaborative interface in high Li <sub>2</sub> S loading cathode for high-energy Li-S and metallic Li-free rechargeable batteries. <b>2019</b> , 37, 183-191	59
717	Graphene/RuO <sub>2</sub> nanocrystal composites as sulfur host for lithium-sulfur batteries. <b>2019</b> , 35, 204-211	21
716	Ultrathin nanosheets-assembled NiCo <sub>2</sub> S <sub>4</sub> nanocages derived from ZIF-67 for high-performance supercapacitors. <b>2019</b> , 54, 9666-9678	33
715	NiCo <sub>2</sub> S <sub>4</sub> yolk-shell hollow spheres with physical and chemical interaction toward polysulfides for advanced lithium-sulfur batteries. <b>2019</b> , 25, 4047-4056	13
714	Necklace-like MoC sulfiphilic sites embedded in interconnected carbon networks for LiS batteries with high sulfur loading. <b>2019</b> , 7, 11298-11304	39
713	An Entangled Cobalt-Nitrogen-Carbon Nanotube Array Electrode with Synergetic Confinement and Electrocatalysis of Polysulfides for Stable LiS Batteries. <b>2019</b> , 2, 2904-2912	15
712	Conductive CoOOH as Carbon-Free Sulfur Immobilizer to Fabricate Sulfur-Based Composite for Lithium-Sulfur Battery. <b>2019</b> , 29, 1901051	102
711	Nonlithium Metal-Sulfur Batteries: Steps Toward a Leap. <b>2019</b> , 31, e1802822	121
710	Enhanced Sulfur Transformation by Multifunctional FeS/FeS/S Composites for High-Volumetric Capacity Cathodes in Lithium-Sulfur Batteries. <b>2019</b> , 6, 1800815	133
709	Designing a Quinone-Based Redox Mediator to Facilitate Li <sub>2</sub> S Oxidation in Li-S Batteries. <b>2019</b> , 3, 872-884	114
708	Recent advances in shuttle effect inhibition for lithium sulfur batteries. <b>2019</b> , 23, 707-732	123
707	Bifunctional NiCo <sub>2</sub> S <sub>4</sub> catalysts supported on a carbon textile interlayer for ultra-stable LiS battery. <b>2019</b> , 7, 7604-7613	60
706	SnS/SnO Heterostructures towards Enhanced Electrochemical Performance of Lithium-Sulfur Batteries. <b>2019</b> , 25, 5416-5421	48
705	Metal-organic framework derived yolk-shell NiS/carbon spheres for lithium-sulfur batteries with enhanced polysulfide redox kinetics. <b>2019</b> , 55, 3243-3246	43

704	Rational design of free-standing 3D porous MXene/rGO hybrid aerogels as polysulfide reservoirs for high-energy lithium-sulfur batteries. <b>2019</b> , 7, 6507-6513	150
703	Efficient Trapping and Catalytic Conversion of Polysulfides by VS <sub>4</sub> Nanosites for LiS Batteries. <b>2019</b> , 4, 755-762	122
702	Synchronous Gains of Areal and Volumetric Capacities in Lithium-Sulfur Batteries Promised by Flower-like Porous TiCT Matrix. <b>2019</b> , 13, 3404-3412	110
701	Interfacial active fluorine site-induced electron transfer on TiO <sub>2</sub> (001) facets to enhance polysulfide redox reactions for better liquid Li <sub>2</sub> S <sub>6</sub> -Based lithium-sulfur batteries. <b>2019</b> , 7, 6431-6438	35
700	Constructing metal-free and cost-effective multifunctional separator for high-performance lithium-sulfur batteries. <b>2019</b> , 59, 390-398	71
699	Cobalt in Nitrogen-Doped Graphene as Single-Atom Catalyst for High-Sulfur Content Lithium-Sulfur Batteries. <b>2019</b> , 141, 3977-3985	626
698	Expediting redox kinetics of sulfur species by atomic-scale electrocatalysts in lithium-sulfur batteries. <b>2019</b> , 1, 533-541	196
697	Promoting Redox Reduction of Lithium-Sulfur Battery by Tris(2-carboxyl)phosphine Shearing S-S Bond. <b>2019</b> , 166, A3869-A3873	
696	Designing Effective Solvent-Catalyst Interface for Catalytic Sulfur Conversion in Lithium-Sulfur Batteries. <b>2019</b> , 31, 10186-10196	27
695	Stepwise Electrocatalysis as a Strategy against Polysulfide Shuttling in Li-S Batteries. <b>2019</b> , 13, 14208-14216	98
694	Lotus Root-Like Nitrogen-Doped Carbon Nanofiber Structure Assembled with VN Catalysts as a Multifunctional Host for Superior Lithium-Sulfur Batteries. <b>2019</b> , 9,	9
693	In situ grown NiCo <sub>2</sub> /Co heterostructures on nitrogen doped carbon polyhedra enabling the trapping and reaction-intensification of polysulfides towards high performance lithium sulfur batteries. <b>2019</b> , 11, 20579-20588	7
692	A N-doped graphene-cobalt nickel sulfide aerogel as a sulfur host for lithium-sulfur batteries.. <b>2019</b> , 9, 32247-32257	7
691	3D ordered macroporous MoO <sub>2</sub> attached on carbonized cloth for high performance free-standing binder-free lithium-sulfur electrodes. <b>2019</b> , 7, 24524-24531	13
690	Three-dimensional MoS <sub>2</sub> /rGO foams as efficient sulfur hosts for high-performance lithium-sulfur batteries. <b>2019</b> , 355, 671-678	107
689	Towards full demonstration of high areal loading sulfur cathode in lithium-sulfur batteries. <b>2019</b> , 39, 17-22	66
688	Nanoparticle Assembled Mesoporous MoO <sub>2</sub> Microrods Derived from Metal Organic Framework and Wrapped with Graphene as the Sulfur Host for Long-Life Lithium-Sulfur Batteries. <b>2019</b> , 6, 1801636	25
687	Flower-like molybdenum disulfide/carbon nanotubes composites for high sulfur utilization and high-performance lithium-sulfur battery cathodes. <b>2019</b> , 473, 540-547	41

686	Review on areal capacities and long-term cycling performances of lithium sulfur battery at high sulfur loading. <b>2019</b> , 18, 289-310	159
685	An ant-nest-like cathode substrate for lithium-sulfur batteries with practical cell fabrication parameters. <b>2019</b> , 18, 491-499	12
684	Direct electrochemical generation of supercooled sulfur microdroplets well below their melting temperature. <b>2019</b> , 116, 765-770	24
683	Separator modified with Ketjenblack-In <sub>2</sub> O <sub>3</sub> nanoparticles for long cycle-life lithium-sulfur batteries. <b>2019</b> , 23, 645-656	17
682	Approaching Ultrastable High-Rate Li-S Batteries through Hierarchically Porous Titanium Nitride Synthesized by Multiscale Phase Separation. <b>2019</b> , 31, e1806547	105
681	A compact 3D interconnected sulfur cathode for high-energy, high-power and long-life lithium-sulfur batteries. <b>2019</b> , 20, 14-23	25
680	Milk-based triboelectric nanogenerator on paper for harvesting energy from human body motion. <b>2019</b> , 56, 400-410	71
679	Layer by Layer Assemble of Colloid Nanomaterial and Functional Multilayer Films for Energy Storage and Conversion. <b>2019</b> , 255-278	3
678	A facile and effective sulfur loading method: Direct drop of liquid Li <sub>2</sub> S <sub>8</sub> on carbon coated TiO <sub>2</sub> nanowire arrays as cathode towards commercializing lithium-sulfur battery. <b>2019</b> , 17, 118-125	58
677	Conductive Mesoporous Niobium Nitride Microspheres/Nitrogen-Doped Graphene Hybrid with Efficient Polysulfide Anchoring and Catalytic Conversion for High-Performance Lithium-Sulfur Batteries. <b>2019</b> , 11, 2961-2969	47
676	Cyclic Voltammetry in Lithium Sulfur Batteries—Challenges and Opportunities. <b>2019</b> , 7, 1801001	51
675	NiCo <sub>2</sub> O <sub>4</sub> Nanofibers as Carbon-Free Sulfur Immobilizer to Fabricate Sulfur-Based Composite with High Volumetric Capacity for Lithium Sulfur Battery. <b>2019</b> , 9, 1803477	169
674	Spider-Web-Inspired Nanocomposite-Modified Separator: Structural and Chemical Cooperativity Inhibiting the Shuttle Effect in Li-S Batteries. <b>2019</b> , 13, 1563-1573	53
673	Blackberry-like hollow graphene spheres synthesized by spray drying for high-performance lithium-sulfur batteries. <b>2019</b> , 295, 822-828	27
672	Conductive and Catalytic Triple-Phase Interfaces Enabling Uniform Nucleation in High-Rate Lithium Sulfur Batteries. <b>2019</b> , 9, 1802768	347
671	Designable Hierarchical Cathode for a High-Efficiency Polysulfide Trapper Toward High-Performance Lithium Sulfur Batteries. <b>2019</b> , 48, 551-559	3
670	Designing a highly efficient polysulfide conversion catalyst with paramontroseite for high-performance and long-life lithium-sulfur batteries. <b>2019</b> , 57, 230-240	134
669	Activating Inert Metallic Compounds for High-Rate Lithium-Sulfur Batteries Through In Situ Etching of Extrinsic Metal. <b>2019</b> , 58, 3779-3783	204

668	Understanding Interactions between Lead Iodide Perovskite Surfaces and Lithium Polysulfide toward New-Generation Integrated Solar-Powered Lithium Battery: An ab Initio Investigation. <b>2019</b> , 123, 82-90	8
667	Activating Inert Metallic Compounds for High-Rate Lithium Sulfur Batteries Through In Situ Etching of Extrinsic Metal. <b>2019</b> , 131, 3819-3823	34
666	TiO <sub>2</sub> nanoparticles anchored on three-dimensionally ordered macro/mesoporous carbon matrix as polysulfides immobilizers for high performance lithium/sulfur batteries. <b>2019</b> , 23, 565-572	9
665	Manipulating Polysulfide Conversion with Strongly Coupled Fe <sub>3</sub> O <sub>4</sub> and Nitrogen Doped Carbon for Stable and High Capacity Lithium Sulfur Batteries. <b>2019</b> , 29, 1807309	56
664	Palladium nanocrystals-imbedded mesoporous hollow carbon spheres with enhanced electrochemical kinetics for high performance lithium sulfur batteries. <b>2019</b> , 143, 878-889	54
663	Accelerating polysulfide redox conversion on bifunctional electrocatalytic electrode for stable Li-S batteries. <b>2019</b> , 20, 98-107	50
662	Sulfuric acid-adjuvant sulfonated graphene as efficient polysulfides tamer for high-energy-density Li S batteries. <b>2019</b> , 412, 134-141	8
661	Supramolecular complexation of polysulfides by $\beta$ -cyclodextrin polymer functionalized graphene hybrid cathode for high-performance lithium-sulfur batteries. <b>2019</b> , 21, 378-389	14
660	Cobalt nitride nanoparticles embedded in porous carbon nanosheet arrays propelling polysulfides conversion for highly stable lithium sulfur batteries. <b>2019</b> , 21, 210-218	51
659	Polymers for high performance Li-S batteries: Material selection and structure design. <b>2019</b> , 89, 19-60	68
658	Tin sulfide modified separator as an efficient polysulfide trapper for stable cycling performance in Li-S batteries. <b>2019</b> , 4, 214-222	59
657	Fully integrated hierarchical double-shelled CoS@CNT nanostructures with unprecedented performance for Li-S batteries. <b>2019</b> , 4, 182-189	46
656	Hybrid graphene album with polysulfides adsorption layer for Li-S batteries. <b>2019</b> , 194, 148-155	10
655	Bio-templated formation of defect-abundant VS <sub>2</sub> as a bifunctional material toward high-performance hydrogen evolution reactions and lithium sulfur batteries. <b>2020</b> , 42, 34-42	56
654	The role of functional materials to produce high areal capacity lithium sulfur battery. <b>2020</b> , 42, 195-209	50
653	Chemical Confinement and Utility of Lithium Polysulfides in Lithium Sulfur Batteries. <b>2020</b> , 4, 1900001	36
652	Biomass-derived nitrogen-doped hierarchical porous carbon as efficient sulfur host for lithium sulfur batteries. <b>2020</b> , 44, 61-67	70
651	Improving confinement and redox kinetics of polysulfides through hollow NC@CeO <sub>2</sub> nanospheres for high-performance lithium-sulfur batteries. <b>2020</b> , 382, 122852	41



- 650 Self-assembled N-doped carbon with a tube-in-tube nanostructure for lithium-sulfur batteries. **2020**, 559, 244-253 11
- 649 Fabricating better metal-organic frameworks separators for LiS batteries: Pore sizes effects inspired channel modification strategy. **2020**, 25, 164-171 46
- 648 Multifunctional Transition Metal-Based Phosphides in Energy-Related Electrocatalysis. **2020**, 10, 1902104 174
- 647 Lithium-Schwefel-Batterien mit Magerelektrolyt: Herausforderungen und Perspektiven. **2020**, 132, 12736-12753 17
- 646 In Situ/Operando Spectroscopic Characterizations Guide the Compositional and Structural Design of LithiumSulfur Batteries. **2020**, 4, 1900467 18
- 645 New redox-mediating polymer binder for enhancing performance of Li-S batteries. **2020**, 44, 154-161 17
- 644 MoS2 nanorods with inner caves through synchronous encapsulation of sulfur for high performance LiS cathodes. **2020**, 45, 18-24 16
- 643 2 D Materials for Inhibiting the Shuttle Effect in Advanced Lithium-Sulfur Batteries. **2020**, 13, 1447-1479 30
- 642 Rationalizing Electrocatalysis of LiS Chemistry by Mediator Design: Progress and Prospects. **2020**, 10, 1901075 184
- 641 Recent advances in chemical adsorption and catalytic conversion materials for LiS batteries. **2020**, 42, 144-168 113
- 640 Enhancing Li-S redox kinetics by fabrication of a three dimensional Co/CoP@nitrogen-doped carbon electrocatalyst. **2020**, 380, 122595 45
- 639 Solvent-free template synthesis of SnO2/C hybrid hollow spheres for superior lithium-sulfur batteries. **2020**, 239, 122070 12
- 638 Hollow nitrogen-doped carbon/sulfur@MnO2 nanocomposite with structural and chemical dual-encapsulation for lithium-sulfur battery. **2020**, 381, 122746 46
- 637 ReS2 nanosheets anchored on rGO as an efficient polysulfides immobilizer and electrocatalyst for Li-S batteries. **2020**, 505, 144586 14
- 636 Promoting kinetics of polysulfides redox reactions by the multifunctional CoS/C/CNT microspheres for high-performance lithium-sulfur batteries. **2020**, 504, 144463 21
- 635 Cobalt phthalocyanine is a suitable scaffold for lithium polysulfide (Li2Sn n = 2B). **2020**, 739, 136942 9
- 634 Efficient polysulfide blocker from conductive niobium nitride@graphene for Li-S batteries. **2020**, 45, 135-141 36
- 633 In situ transformation of LDH into hollow cobalt-embedded and N-doped carbonaceous microflowers as polysulfide mediator for lithium-sulfur batteries. **2020**, 385, 123457 17



632	1T-MoS <sub>2</sub> nanotubes wrapped with N-doped graphene as highly-efficient absorbent and electrocatalyst for LiS batteries. <b>2020</b> , 447, 227364	64
631	Lithium-Sulfur Batteries under Lean Electrolyte Conditions: Challenges and Opportunities. <b>2020</b> , 59, 12636-12652	230
630	Efficient adsorption of uranium (VI) from aqueous solution by a novel modified steel slag adsorbent. <b>2020</b> , 323, 73-81	6
629	A high-performance energy storage system from sphagnum uptake waste LIBs with negative greenhouse-gas emission. <b>2020</b> , 67, 104216	7
628	3D hybrid of CoS and N-doped carbon hollow spheres as effective hosts for Li-S batteries. <b>2020</b> , 31, 035404	13
627	Interface enhanced well-dispersed Co <sub>9</sub> S <sub>8</sub> nanocrystals as an efficient polysulfide host in lithium-sulfur batteries. <b>2020</b> , 48, 109-115	41
626	Simple synthesis of Ni/high porosity biomass carbon composites with enhanced electrochemical performance of lithium-sulfur battery. <b>2020</b> , 832, 153692	15
625	Polar, catalytic, and conductive CoSe <sub>2</sub> /C frameworks for performance enhanced S cathode in LiS batteries. <b>2020</b> , 48, 128-135	33
624	Electrode Degradation in Lithium-Ion Batteries. <b>2020</b> , 14, 1243-1295	209
623	Rational design of two-dimensional nanomaterials for lithium-sulfur batteries. <b>2020</b> , 13, 1049-1075	156
622	An engineered self-supported electrocatalytic cathode and dendrite-free composite anode based on 3D double-carbon hosts for advanced LiS <sub>2</sub> batteries. <b>2020</b> , 8, 2969-2983	49
621	Rational design of polar/nonpolar mediators toward efficient sulfur fixation and enhanced conductivity. <b>2020</b> , 8, 1010-1051	23
620	Electrospun carbon nanofibers with MnS sulfiphilic sites as efficient polysulfide barriers for high-performance wide-temperature-range LiS batteries. <b>2020</b> , 8, 1212-1220	35
619	Enhanced Chemisorption and Catalytic Effects toward Polysulfides by Modulating Hollow Nanoarchitectures for Long-Life Lithium-Sulfur Batteries. <b>2020</b> , 16, e1906114	28
618	Facet-tailoring five-coordinated Ti sites and structure-optimizing electron transfer in a bifunctional cathode with titanium nitride nanowire array to boost the performance of Li <sub>2</sub> S <sub>6</sub> -based lithium-sulfur batteries. <b>2020</b> , 26, 40-45	30
617	Synergetic Effect of Nitrogen/Sulfur Dual-Doped Hierarchically Porous Carbon Networks for LiS Batteries. <b>2020</b> , 8, 749-758	18
616	Long Cycle Life Organic Polysulfide Catholyte for Rechargeable Lithium Batteries. <b>2020</b> , 7, 1902646	25
615	Theoretical Calculation Guided Design of Single-Atom Catalysts toward Fast Kinetic and Long-Life Li-S Batteries. <i>Nano Letters</i> , <b>2020</b> , 20, 1252-1261	11.5 194

614	MoS <sub>2</sub> wrapped MOFs-derived N-doped carbon nanorods as an effective sulfur host for high-performance lithium-sulfur batteries. <b>2020</b> , 46, 9614-9621	17
613	One-step hydrothermal synthesis of Ni-Co sulfide on Ni foam as a binder-free electrode for lithium-sulfur batteries. <b>2020</b> , 565, 378-387	20
612	Adsorption-Catalysis Design in the Lithium-Sulfur Battery. <b>2020</b> , 10, 1903008	154
611	Nanomaterials application in LiSe and NaSe batteries. <b>2020</b> , 69-114	1
610	Multifunctional reaction interfaces for capture and boost conversion of polysulfide in lithium-sulfur batteries. <b>2020</b> , 334, 135658	14
609	Self-assembly of MoO <sub>3</sub> -decorated carbon nanofiber interlayers for high-performance lithium-sulfur batteries. <b>2020</b> , 22, 2157-2163	17
608	Design of a composite cathode and a graphene coated separator for a stable room-temperature aluminum-sulfur battery. <b>2020</b> , 4, 1630-1641	15
607	Constructing a 3D compact sulfur host based on carbon-nanotube threaded defective Prussian blue nanocrystals for high performance lithium-sulfur batteries. <b>2020</b> , 8, 1154-1163	16
606	Suppression of the Shuttle Effect in LiS Batteries via Magnetron Sputtered TiO <sub>2</sub> Thin Film at the Electrode/Electrolyte Interface. <b>2020</b> , 3, 1515-1529	11
605	Vanadium Sulfide@Sulfur Composites as High-Performance Cathode for Advanced Lithium-Sulfur Batteries. <b>2020</b> , 8, 1901163	13
604	Ether-compatible lithium sulfur batteries with robust performance via selenium doping. <b>2020</b> , 46, 199-201	3
603	Designing Highly Conductive Functional Groups Improving Guest-Host Interactions in Li/S Batteries. <b>2020</b> , 16, e1905585	21
602	Donor dominated triazine-based microporous polymer as a polysulfide immobilizer and catalyst for high-performance lithium-sulfur batteries. <b>2020</b> , 392, 123694	46
601	Covalently Bonded Sulfur Anchored with Thiol-Modified Carbon Nanotube as a Cathode Material for Lithium-Sulfur Batteries. <b>2020</b> , 3, 487-494	8
600	Catalytic Interfaces-Enriched Hybrid Hollow Spheres Sulfur Host for Advanced LiS Batteries. <b>2020</b> , 7, 1901420	10
599	Phase-transformed Mo <sub>4</sub> P <sub>3</sub> nanoparticles as efficient catalysts towards lithium polysulfide conversion for lithium-sulfur battery. <b>2020</b> , 330, 135310	27
598	A heterostructured Co <sub>3</sub> S <sub>4</sub> /MnS nanotube array as a catalytic sulfur host for lithium-sulfur batteries. <b>2020</b> , 330, 135311	34
597	In-situ topochemical nitridation derivative MoO <sub>2</sub> /Mo <sub>2</sub> N binary nanobelts as multifunctional interlayer for fast-kinetic Li-Sulfur batteries. <b>2020</b> , 68, 104356	64

596	High sulfur-containing organosulfur polymer composite cathode embedded by monoclinic S for lithium sulfur batteries. <b>2020</b> , 26, 570-576	30
595	TiO <sub>2</sub> /Nanosheet-Redox Graphene Oxide/Sulphur Cathode for High-Performance Lithium-Sulphur Batteries. <b>2020</b> , 20, 1715-1722	1
594	Ni <sub>3</sub> S <sub>2</sub> anchored to N/S co-doped reduced graphene oxide with highly pleated structure as a sulfur host for lithium sulfur batteries. <b>2020</b> , 8, 3834-3844	28
593	Redox Mediation with Organopolysulfides in Working Lithium-Sulfur Batteries. <b>2020</b> , 6, 3297-3311	84
592	Electrocatalytic effect of 3D porous sulfur/gallium hybrid materials in lithium sulfur batteries. <b>2020</b> , 364, 137259	18
591	Reducing polarization of lithium-sulfur batteries via ZnS/reduced graphene oxide accelerated lithium polysulfide conversion. <b>2020</b> , 18, 100519	25
590	Highly dispersed MoP encapsulated in P-doped porous carbon boosts polysulfide redox kinetics of lithium-sulfur batteries. <b>2020</b> , 18, 100531	15
589	FeP-decorated N,P Codoped Carbon Synthesized via Direct Biological Recycling for Endurable Sulfur Encapsulation. <b>2020</b> , 6, 1827-1834	13
588	Optimizing Redox Reactions in Aprotic Lithium Sulfur Batteries. <b>2020</b> , 10, 2002180	45
587	ZnSe/N-Doped Carbon Nanoreactor with Multiple Adsorption Sites for Stable Lithium-Sulfur Batteries. <b>2020</b> , 14, 15492-15504	43
586	Accelerating Redox Kinetics of Lithium-Sulfur Batteries. <b>2020</b> , 2, 1020-1033	15
585	Ti <sub>3</sub> C <sub>2</sub> MXene as an Energy band bridge to regulate the heterointerface mass transfer and electron reversible exchange process for LiS batteries. <b>2020</b> , 8, 25255-25267	36
584	Constructing CoS Nanosheets Coating N-Doped Carbon Nanofibers as Freestanding Sulfur Host for High-Performance Lithium-Sulfur Batteries. <b>2020</b> , 7, 2002037	21
583	Metal-Based Electrocatalysts for High-Performance Lithium-Sulfur Batteries: A Review. <b>2020</b> , 10, 1137	4
582	Using of various metal species for improvement of electrochemical performances of lithium sulfur batteries. <b>2020</b> , 878, 114652	4
581	in situ engineered ultrafine NiS-ZnS heterostructures in micro-mesoporous carbon spheres accelerating polysulfide redox kinetics for high-performance lithium-sulfur batteries. <b>2020</b> , 12, 16201-16207	17
580	Status and prospects of porous graphene networks for lithium sulfur batteries. <b>2020</b> , 7, 2487-2518	33
579	Applications of transition-metal sulfides in the cathodes of lithium sulfur batteries. <b>2020</b> , 2, 134-146	44

578	Pb/C Composite with Spherical Pb Nanoparticles Encapsulated in Carbon Microspheres as a High-Performance Anode for Lithium-Ion Batteries. <b>2020</b> , 3, 7416-7426	4
577	A synergistic engineering layer with a versatile H <sub>2</sub> Ti <sub>3</sub> O <sub>7</sub> electrocatalyst for a suppressed shuttle effect and enhanced catalytic conversion in lithium-sulfur batteries. <b>2020</b> , 8, 25411-25424	8
576	Controllable Substitution of S Radicals on Triazine Covalent Framework to Expedite Degradation of Polysulfides. <b>2020</b> , 16, e2004631	6
575	Rational Design of a MnO Nanoparticle-Embedded Carbon Nanofiber Interlayer for Advanced Lithium-Sulfur Batteries. <b>2020</b> , 3, 10793-10801	7
574	Stable Lithium Sulfur Battery Based on In Situ Electrocatalytically Formed Li <sub>2</sub> S on Metallic MoS <sub>2</sub> /Carbon Cloth Support. <b>2020</b> , 4, 2000353	24
573	Design, synthesis, and application of metal sulfides for Li-S batteries: progress and prospects. <b>2020</b> , 8, 17848-17882	32
572	Fe <sub>3</sub> C composite carbon nanofiber interlayer for efficient trapping and conversion of polysulfides in lithium-sulfur batteries. <b>2020</b> , 847, 156443	18
571	Exploring and Understanding the Roles of Li <sub>2</sub> Sn and the Strategies to beyond Present Li-S Batteries. <b>2020</b> , 6, 2533-2557	62
570	Borophene-like boron subunits-inserted molybdenum framework of MoB <sub>2</sub> enables stable and quick-acting Li <sub>2</sub> S <sub>6</sub> -based lithium-sulfur batteries. <b>2020</b> , 32, 216-224	21
569	Tuning Nitrogen in Graphitic Carbon Nitride Enabling Enhanced Performance for Polysulfide Confinement in Li-S Batteries. <b>2020</b> , 34, 11557-11564	11
568	Promoting Electrocatalytic Conversion of Polysulfide using Cobalt Disulfide Nanocrystals for Lithium Sulfur Batteries. <b>2020</b> , 124, 21319-21328	1
567	Durable Conductive Webs as Multifunctional Binder for the High-Performance Lithium-Sulfur Battery. <b>2020</b> , 3, 7825-7831	3
566	Defective VSe-Graphene Heterostructures Enabling Electrocatalyst Evolution for Lithium-Sulfur Batteries. <b>2020</b> , 14, 11929-11938	61
565	Zeolitic Imidazolate Frameworks-Derived Activated Carbon As Electrode Material for Lithium-Sulfur Batteries and Lithium-Ion Batteries. <b>2020</b> , 49, 6156-6164	3
564	Lithiated VO <sub>2</sub> (M)/Carbon Fibers Hybrid Host for Improving the Cycling Stability of Sulfur Cathode in Lithium-Sulfur Batteries <b>2020</b> , 38, 1703-1708	5
563	Constructing Defect-Rich MoS <sub>2</sub> /N-Doped Carbon Nanosheets for Catalytic Polysulfide Conversion in Lithium-Sulfur Batteries. <b>2020</b> , 8, 13318-13327	17
562	Selective S/LiS Conversion in-Built Crystal Facet Self-Mediation: Toward High Volumetric Energy Density Lithium-Sulfur Batteries. <b>2020</b> , 14, 15011-15022	32
561	Dual-Constrained Sulfur in FeS <sub>2</sub> @C Nanostructured Lithium-Sulfide Batteries. <b>2020</b> , 3, 10950-10960	5

- 560 Three-Dimensional SnS<sub>2</sub> Nanoarrays with Enhanced Lithium-Ion Storage Properties. **2020**, 7, 4484-4491 3
- 559 Crosslinked cyanometallate-chitosan nanosheet assembled aerogels as efficient catalysts to boost polysulfide redox kinetics in lithium-sulfur batteries. **2020**, 8, 19262-19268 7
- 558 Separators Modified Using MoO<sub>2</sub>@Carbon Nanotube Nanocomposites as Dual-Mode Li-Polysulfide Anchoring Materials for High-Performance Anti-Self-Discharge Lithium-Sulfur Batteries. **2020**, 8, 15134-15148 7
- 557 Rechargeable Aluminium-Sulfur Battery with Improved Electrochemical Performance by Cobalt-Containing Electrocatalyst. **2020**, 59, 22963-22967 15
- 556 Nanostructured Sulfur and Sulfides for Advanced Lithium/Sulfur Cells. **2020**, 7, 3927-3942 4
- 555 Unravel the Catalytic Effect of Two-Dimensional Metal Sulfides on Polysulfide Conversions for Lithium-Sulfur Batteries. **2020**, 12, 43560-43567 23
- 554 One-step electrochemical exfoliation-deposition of MnO<sub>2</sub> anchoring on graphite nanosheets as an effective host material for high-performance sulfur cathode. **2020**, 26, 5279-5286 2
- 553 Electrocatalytic Cathodes Based on Cobalt Nanoparticles Supported on Nitrogen-Doped Porous Carbon by Strong Electrostatic Adsorption for Advanced Lithium-Sulfur Batteries. **2020**, 34, 13038-13047 3
- 552 Rechargeable Aluminium-Sulfur Battery with Improved Electrochemical Performance by Cobalt-Containing Electrocatalyst. **2020**, 132, 23163-23167 5
- 551 Unraveling the Reaction Mechanism of FeS as a Li-Ion Battery Cathode. **2020**, 12, 44850-44857 24
- 550 A review of cathode materials in lithium-sulfur batteries. **2020**, 26, 5299-5318 24
- 549 Highly Stable Lithium-Sulfur Batteries Achieved by a SnS/Porous Carbon Nanosheet Architecture Modified Celgard Separator. **2020**, 30, 2006297 18
- 548 Up-Scalable Conversion of White-Waste Polystyrene Foams to Sulfur, Phosphorus-Codoped Porous Carbon for High-Performance Lithium-Sulfur Batteries. **2020**, 3, 9369-9378 2
- 547 Promoting polysulfide conversion by catalytic separator with LiNiPO<sub>4</sub> and rGO hybrids for high performance Li-S batteries. **2020**, 8, 20111-20121 14
- 546 Highly-rough surface carbon nanofibers film as an effective interlayer for lithium-sulfur batteries. **2020**, 41, 092701 4
- 545 CoS<sub>2</sub>-Decorated Cobalt/Nitrogen Co-Doped Carbon Nanofiber Networks as Dual Functional Electrocatalysts for Enhancing Electrochemical Redox Kinetics in Lithium-Sulfur Batteries. **2020**, 8, 13600-13609<sup>36</sup>
- 544 State-of-the-Art Applications of 2D Nanomaterials in Energy Storage. **2020**, 253-293 3
- 543 Boosting Li-S battery performance by an efficient polysulfide double-blocking strategy. **2020**, 24, 100209 2

542	Porous NiCoS Nanoneedle Arrays with Highly Efficient Electrocatalysis Anchored on Carbon Cloths as Self-Supported Hosts for High-Loading Li-S Batteries. <b>2020</b> , 12, 57975-57986	13
541	Kinetic Enhancement of Sulfur Cathodes by N-Doped Porous Graphitic Carbon with Bound VN Nanocrystals. <b>2020</b> , 16, e2004950	29
540	Atomic Layer Deposition of Single Atomic Cobalt as a Catalytic Interlayer for Lithium-Sulfur Batteries. <b>2020</b> , 3, 11206-11212	7
539	Inducing rapid polysulfide transformation through enhanced interfacial electronic interaction for lithium-sulfur batteries. <b>2020</b> , 12, 13980-13986	8
538	Electrocatalytic Interlayer with Fast Lithium Polysulfides Diffusion for Lithium-Sulfur Batteries to Enhance Electrochemical Kinetics under Lean Electrolyte Conditions. <b>2020</b> , 30, 2000742	48
537	Atomically Engineered Transition Metal Dichalcogenides for Liquid Polysulfide Adsorption and Their Effective Conversion in Li-S Batteries. <b>2020</b> , 12, 27112-27121	18
536	Rational design of well-dispersed ultrafine CoS <sub>2</sub> nanocrystals in micro-mesoporous carbon spheres with a synergistic effect for high-performance lithium-sulfur batteries. <b>2020</b> , 8, 10885-10890	24
535	Efficient polysulfide anchor: brain coral-like WS <sub>2</sub> nanosheets. <b>2020</b> , 55, 12031-12040	2
534	Promoting the sulfur conversion kinetics via a solid auxiliary redox couple embedded in the cathode of Li-S batteries. <b>2020</b> , 4, 3701-3711	0
533	Storage technologies for electric vehicles. <b>2020</b> , 7, 340-361	17
532	Conversion of Co Nanoparticles to CoS in Metal-Organic Framework-Derived Porous Carbon during Cycling Facilitates NaS Reactivity in a Na-S Battery. <b>2020</b> , 12, 29285-29295	1
531	Ultrathin Lithium Aluminate Nanoflake-Inlaid Sulfur as a Cathode Material for Lithium-Sulfur Batteries with High Areal Capacity. <b>2020</b> , 3, 5637-5645	8
530	High-rate lithium-sulfur batteries enabled via vanadium nitride nanoparticle/3D porous graphene through regulating the polysulfides transformation. <b>2020</b> , 398, 125432	16
529	rGO-CNT aerogel embedding iron phosphide nanocubes for high-performance Li-polysulfide batteries. <b>2020</b> , 167, 446-454	9
528	Construction of polypyrrole coated hollow cobalt manganate nanocages as an effective sulfur host for lithium-sulfur batteries. <b>2020</b> , 46, 18224-18233	19
527	Oriented nanoporous MOFs to mitigate polysulfides migration in lithium-sulfur batteries. <b>2020</b> , 75, 105009	11
526	Ultrathin TiO <sub>2</sub> surface layer coated TiN nanoparticles in freestanding film for high sulfur loading Li-S battery. <b>2020</b> , 399, 125674	14
525	Fast conversion and controlled deposition of lithium (poly)sulfides in lithium-sulfur batteries using high-loading cobalt single atoms. <b>2020</b> , 30, 250-259	138

524	12 years roadmap of the sulfur cathode for lithium sulfur batteries (2009-2020). <b>2020</b> , 30, 346-366	98
523	Yolk-shell structure MnO <sub>2</sub> @Hollow carbon nanospheres as sulfur host with synergistic encapsulation of polysulfides for improved LiS batteries. <b>2020</b> , 842, 155790	28
522	Nanostructured CoS <sub>2</sub> -Decorated Hollow Carbon Spheres: A Performance Booster for Li-Ion/Sulfur Batteries. <b>2020</b> , 3, 6447-6459	10
521	MoO nanoparticles embedded in N-doped hydrangea-like carbon as a sulfur host for high-performance lithium-sulfur batteries.. <b>2020</b> , 10, 20173-20183	5
520	Nitrogen Doping Improves the Immobilization and Catalytic Effects of Co <sub>9</sub> S <sub>8</sub> in Li-S Batteries. <b>2020</b> , 30, 2002462	46
519	In-built durable LiS counterparts from Li <sub>2</sub> TiS <sub>2</sub> batteries. <b>2020</b> , 17, 100439	5
518	Multifunctional MoSe <sub>2</sub> @rGO coating on the cathode versus the separator as an efficient polysulfide barrier for high-performance lithium-sulfur battery. <b>2020</b> , 527, 146785	28
517	Crepe Cake Structured Layered Double Hydroxide/Sulfur/Graphene as a Positive Electrode Material for Li-S Batteries. <b>2020</b> , 14, 8220-8231	29
516	In-Situ Assembled VS <sub>4</sub> as a Polysulfide Mediator for High-Loading Lithium-Sulfur Batteries. <b>2020</b> , 5, 1177-1185	56
515	Cu <sub>2</sub> CoGeS <sub>4</sub> nanocrystals for high performance aqueous polysulfide/iodide redox flow batteries: enhanced selectively towards the electrocatalytic conversion of polysulfides. <b>2020</b> , 4, 2892-2899	7
514	Strategies toward High-Loading Lithium-Sulfur Battery. <b>2020</b> , 10, 2000082	140
513	Spinel-type bimetal sulfides derived from Prussian blue analogues as efficient polysulfides mediators for lithium-sulfur batteries. <b>2020</b> , 32, 4063-4063	1
512	Local Concentration Effect-Derived Heterogeneous LiS/LiS Deposition on Dual-Phase MWCNT/Cellulose Nanofiber/NiCoS Self-Standing Paper for High Performance of Lithium Polysulfide Batteries. <b>2020</b> , 12, 15228-15238	19
511	Electrode Design for Lithium-Sulfur Batteries: Problems and Solutions. <b>2020</b> , 30, 1910375	109
510	An in situ encapsulation approach for polysulfide retention in lithium-sulfur batteries. <b>2020</b> , 8, 6902-6907	4
509	Cobalt single atoms supported on N-doped carbon as an active and resilient sulfur host for lithium-sulfur batteries. <b>2020</b> , 28, 196-204	61
508	Octopus-Inspired Design of Apical NiS Nanoparticles Supported on Hierarchical Carbon Composites as an Efficient Host for Lithium Sulfur Batteries with High Sulfur Loading. <b>2020</b> , 12, 17528-17537	4
507	Electrochemical Phase Evolution of Metal-Based Pre-Catalysts for High-Rate Polysulfide Conversion. <b>2020</b> , 59, 9011-9017	106



506	Synergistic effect of cobalt, nitrogen-codoped hollow carbon sphere hosts for high performance lithium sulfur batteries. <b>2020</b> , 44, 5965-5971	1
505	An Innovative Lithium Ion Battery System Based on a CuS Anode Material. <b>2020</b> , 12, 17396-17405	11
504	Electrochemical Phase Evolution of Metal-Based Pre-Catalysts for High-Rate Polysulfide Conversion. <b>2020</b> , 132, 9096-9102	21
503	Ultrafine Co <sub>3</sub> Se <sub>4</sub> Nanoparticles in Nitrogen-Doped 3D Carbon Matrix for High-Stable and Long-Cycle-Life Lithium Sulfur Batteries. <b>2020</b> , 10, 1904273	78
502	Improving the capacity and cycling-stability of Lithium-Sulfur batteries using self-healing binders containing dynamic disulfide bonds. <b>2020</b> , 4, 2760-2767	15
501	Electrocatalytic conversion of lithium polysulfides by highly dispersed ultrafine Mo <sub>2</sub> C nanoparticles on hollow N-doped carbon flowers for Li-S batteries. <b>2020</b> , 2, e12020	15
500	Micro-Mesopores Nitrogen-Doped Carbon Combined Polar-MoS <sub>2</sub> as Host for High-Performance Li-S Batteries. <b>2020</b> , 5, 3098-3104	2
499	Conductive cobalt doped niobium nitride porous spheres as an efficient polysulfide convertor for advanced lithium-sulfur batteries. <b>2020</b> , 8, 6276-6282	38
498	Dual-confined sulfur cathodes based on SnO <sub>2</sub> -decorated MoS <sub>2</sub> microboxes for long-life lithium-Sulfur batteries. <b>2020</b> , 340, 135991	8
497	TMDs beyond MoS for Electrochemical Energy Storage. <b>2020</b> , 26, 6320-6341	20
496	Multifunctional ultrasmall-MoS <sub>2</sub> /graphene composites for high sulfur loading LiS batteries. <b>2020</b> , 4, 1483-1491	7
495	A Perspective toward Practical Lithium-Sulfur Batteries. <b>2020</b> , 6, 1095-1104	184
494	Bonding VSe <sub>2</sub> ultrafine nanocrystals on graphene toward advanced lithium-sulfur batteries. <b>2020</b> , 13, 2673-2682	33
493	Dense MoS <sub>2</sub> Micro-Flowers Planting on Biomass-Derived Carbon Fiber Network for Multifunctional Sulfur Cathodes. <b>2020</b> , 5, 7563-7570	3
492	Ferrites for Electrochemical Supercapacitors. <b>2020</b> , 83-122	3
491	Engineering Bifunctional Host Materials of Sulfur and Lithium-Metal Based on Nitrogen-Enriched Polyacrylonitrile for Li-S Batteries. <b>2020</b> , 26, 8784-8793	6
490	Dual taming of polysulfides by phosphorus-doped carbon for improving electrochemical performances of lithium-Sulfur battery. <b>2020</b> , 354, 136648	26
489	Dual-Functional Multichannel Carbon Framework Embedded with CoS Nanoparticles: Promoting the Phase Transformation for High-Loading Li-S Batteries. <b>2020</b> , 12, 32726-32735	19



488	Selenium or Tellurium as Eutectic Accelerators for High-Performance Lithium/Sulfur Batteries. <b>2020</b> , 3, 613-642	33
487	Recent progress in developing Li <sub>2</sub> S cathodes for LiS batteries. <b>2020</b> , 27, 279-296	63
486	Nanoengineering to achieve high efficiency practical lithium-sulfur batteries. <b>2020</b> , 5, 808-831	28
485	MCNT/MoS <sub>2</sub> promoting the electrochemical performance of lithium-sulfur batteries by adsorption polysulfide. <b>2020</b> , 7, 035507	1
484	Hybrid Membrane with SnS <sub>2</sub> Nanoplates Decorated Nitrogen-Doped Carbon Nanofibers as Binder-Free Electrodes with Ultrahigh Sulfur Loading for Lithium Sulfur Batteries. <b>2020</b> , 8, 2707-2715	55
483	2020 Roadmap on Carbon Materials for Energy Storage and Conversion. <b>2020</b> , 15, 995-1013	99
482	Nanosized FeS <sub>2</sub> Particles Caged in the Hollow Carbon Shell as a Robust Polysulfide Adsorbent and Redox Mediator. <b>2020</b> , 8, 3261-3272	18
481	Solid Additives for Improving the Performance of Sulfur Cathodes in Lithium/Sulfur Batteries: Adsorbents, Mediators, and Catalysts. <b>2020</b> , 4, 1900864	37
480	Graphene-Modified Mesoporous Iron Phosphate as Superior Binary Sulfur Host for Lithium/Sulfur Batteries. <b>2020</b> , 8, 1901462	3
479	Assessment of critical materials and cell design factors for high performance lithium-sulfur batteries using machine learning. <b>2020</b> , 390, 124117	23
478	Co-Fe bimetallic sulfide with robust chemical adsorption and catalytic activity for polysulfides in lithium-sulfur batteries. <b>2020</b> , 387, 124122	29
477	An ultra-durable gel electrolyte stabilizing ion deposition and trapping polysulfides for lithium-sulfur batteries. <b>2020</b> , 27, 25-34	15
476	Spherical Metal Oxides with High Tap Density as Sulfur Host to Enhance Cathode Volumetric Capacity for Lithium-Sulfur Battery. <b>2020</b> , 12, 5909-5919	44
475	Propelling polysulfide conversion for high-loading lithium/sulfur batteries through highly sulfiphilic NiCo <sub>2</sub> S <sub>4</sub> nanotubes. <b>2020</b> , 27, 51-60	41
474	Electrospun three-dimensional cobalt decorated nitrogen doped carbon nanofibers network as freestanding electrode for lithium/sulfur batteries. <b>2020</b> , 337, 135765	52
473	Ultrahigh volumetric capacity enabled by dynamic evolutions of host-guest pairs in self-supporting lithium-sulfur batteries. <b>2020</b> , 70, 104522	29
472	Curbing polysulfide shuttling by synergistic engineering layer composed of supported Sn <sub>4</sub> P <sub>3</sub> nanodots electrocatalyst in lithium-sulfur batteries. <b>2020</b> , 70, 104532	53
471	High loading cotton cellulose-based aerogel self-standing electrode for Li-S batteries. <b>2020</b> , 65, 803-811	20

470	Colloidal dispersion of NbO/reduced graphene oxide nanocomposites as functional coating layer for polysulfide shuttle suppression and lithium anode protection of Li-S battery. <b>2020</b> , 566, 11-20	17
469	Graphene-Like Matrix Composites with Fe <sub>2</sub> O <sub>3</sub> and Co <sub>3</sub> O <sub>4</sub> as Cathode Materials for Lithium-Sulfur Batteries. <b>2020</b> , 3, 1382-1390	11
468	Co-based and Cu-based MOFs modified separators to strengthen the kinetics of redox reaction and inhibit lithium-dendrite for long-life lithium-sulfur batteries. <b>2020</b> , 388, 124241	47
467	Naturally derived honeycomb-like N,S-codoped hierarchical porous carbon with MS (M = Co, Ni) decoration for high-performance Li-S battery. <b>2020</b> , 12, 5114-5124	43
466	A long-life Li-S battery enabled by a cathode made of well-distributed B <sub>4</sub> C nanoparticles decorated activated cotton fibers. <b>2020</b> , 451, 227751	12
465	The role of titanium-deficient anatase TiO interlayers in boosting lithium-sulfur battery performance: polysulfide trapping, catalysis and enhanced lithium ion transport. <b>2020</b> , 12, 4645-4654	28
464	An integrated hybrid interlayer for polysulfides/selenides regulation toward advanced Li/SeS <sub>2</sub> batteries. <b>2020</b> , 161, 413-422	19
463	Ordered micro-mesoporous carbon spheres embedded with well-dispersed ultrafine Fe <sub>3</sub> C nanocrystals as cathode material for high-performance lithium-sulfur batteries. <b>2020</b> , 388, 124315	16
462	The electrocatalytic activity of BaTiO <sub>3</sub> nanoparticles towards polysulfides enables high-performance lithium-sulfur batteries. <b>2020</b> , 48, 208-216	13
461	Highly integrated sulfur cathodes with strong sulfur/high-strength binder interactions enabling durable high-loading lithium-sulfur batteries. <b>2020</b> , 49, 71-79	9
460	FeOOH Interlayer With Abundant Oxygen Vacancy Toward Boosting Catalytic Effect for Lithium Sulfur Batteries. <b>2020</b> , 8, 309	4
459	Boosting the polysulfide confinement in B/N-codoped hierarchically porous carbon nanosheets via Lewis acid-base interaction for stable Li-S batteries. <b>2020</b> , 51, 90-100	19
458	MnO <sub>2</sub> supported on acrylic cloth as functional separator for high-performance lithium-sulfur batteries. <b>2020</b> , 464, 228181	24
457	Single-atom catalysis enables long-life, high-energy lithium-sulfur batteries. <b>2020</b> , 13, 1856-1866	161
456	One-Pot Fabrication of Crumpled N-Doped Graphene Anchored with Cobalt for High-Performance Lithium-Sulfur Batteries. <b>2020</b> , 7, 1733-1738	4
455	Rational design of MoNi sulfide yolk-shell heterostructure nanospheres as the efficient sulfur hosts for high-performance lithium-sulfur batteries. <b>2020</b> , 394, 124983	16
454	Review of Emerging Potassium-Sulfur Batteries. <b>2020</b> , 32, e1908007	51
453	Modulating the Void Space of Nitrogen-Doped Hollow Mesoporous Carbon Spheres for Lithium-Sulfur Batteries. <b>2020</b> , 6, 925-929	4

452	Lithium fluoride as an efficient additive for improved electrochemical performance of Li-S batteries. <b>2020</b> , 598, 124737	2
451	MOF-derived NiCo <sub>2</sub> S <sub>4</sub> @C as a separator modification material for high-performance lithium-sulfur batteries. <b>2020</b> , 344, 135811	19
450	Bifunctional TiS <sub>2</sub> /CNT as efficient polysulfide barrier to improve the performance of lithium-sulfur battery. <b>2020</b> , 832, 154947	19
449	Mn <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> /rGO as dual-function polysulfide inhibitor through oxygen deficiencies and polar sites for lithium sulfur batteries. <b>2020</b> , 521, 146425	2
448	Molecular-Level Design of Pyrrhotite Electrocatalyst Decorated Hierarchical Porous Carbon Spheres as Nanoreactors for Lithium-Sulfur Batteries. <b>2020</b> , 10, 2000651	61
447	A three-dimensional hierarchical porous carbon network decorated with MnO <sub>2</sub> nanoparticles (HPCM) as an efficient sulfur host for high-performance lithium-sulfur batteries (LSBs). <b>2020</b> , 835, 155206	4
446	Rational design of MoS <sub>2</sub> nanosheets decorated on mesoporous hollow carbon spheres as a dual-functional accelerator in sulfur cathode for advanced pouch-type LiS batteries. <b>2020</b> , 51, 262-271	32
445	Graphene-Templated Growth of WS <sub>2</sub> Nanoclusters for Catalytic Conversion of Polysulfides in Lithium-Sulfur Batteries. <b>2020</b> , 3, 4923-4930	11
444	Integration of Binary Active Sites: Co V O as Polysulfide Traps and Catalysts for Lithium-Sulfur Battery with Superior Cycling Stability. <b>2020</b> , 16, e1907153	18
443	Loading Fe <sub>3</sub> O <sub>4</sub> nanoparticles on paper-derived carbon scaffold toward advanced lithium-sulfur batteries. <b>2021</b> , 52, 1-11	23
442	Two-dimensional multimetallic sulfide nanosheets with multi-active sites to enhance polysulfide redox reactions in liquid Li <sub>2</sub> S <sub>6</sub> -based lithium-polysulfide batteries. <b>2021</b> , 52, 163-169	17
441	Catalyzing the polysulfide conversion for promoting lithium sulfur battery performances: A review. <b>2021</b> , 54, 434-451	53
440	Solidifying Cathode-Electrolyte Interface for Lithium-Sulfur Batteries. <b>2021</b> , 11, 2000791	38
439	Fe-N <sub>x</sub> Sites enriched microporous carbon nanoflower planted with tangled bamboo-like carbon nanotube as a strong polysulfides anchor for lithium-sulfur batteries. <b>2021</b> , 6, 506-516	5
438	Catalytic cobalt phosphide Co <sub>2</sub> P/carbon nanotube nanocomposite as host material for high performance lithium-sulfur battery cathode. <b>2021</b> , 851, 156289	26
437	Single-atom catalysts for metal-sulfur batteries: Current progress and future perspectives. <b>2021</b> , 54, 452-466	28
436	Host Materials Anchoring Polysulfides in LiS Batteries Reviewed. <b>2021</b> , 11, 2001304	91
435	Inorganic Mediator toward Organosulfide Active Material: Anchoring and Electrocatalysis. <b>2021</b> , 31, 2001493	12

434	Vertically rooting carbon nanotubes on cobalt-loaded hollow Titanium Dioxide spheres as conductive multifunctional sulfur hosts for superior lithium-sulfur performance. <b>2021</b> , 854, 157267	6
433	Advances in preparation methods and mechanism analysis of layered double hydroxide for lithium-ion batteries and lithium-sulfur batteries. <b>2021</b> , 58, 472-499	9
432	A carbon mixed amorphous-TiS <sub>x</sub> separator coating for lithium sulfur batteries. <b>2021</b> , 258, 123923	5
431	Unraveling Shuttle Effect and Suppression Strategy in Lithium/Sulfur Cells by In Situ/Operando X-ray Absorption Spectroscopic Characterization. <b>2021</b> , 4, 222-228	13
430	Recent advances of metal phosphides for LiS chemistry. <b>2021</b> , 55, 533-548	47
429	Rooting MnO <sub>2</sub> nanosheet on carbon nanoboxes as efficient catalytic host for lithium-sulfur battery. <b>2021</b> , 25, 505-512	6
428	Fibrous Materials for Flexible LiS Battery. <b>2021</b> , 11, 2002580	34
427	Efficient separators with fast Li-ion transfer and high polysulfide entrapment for superior lithium-sulfur batteries. <b>2021</b> , 408, 127348	11
426	A lightweight nitrogen/oxygen dual-doping carbon nanofiber interlayer with meso-/micropores for high-performance lithium-sulfur batteries. <b>2021</b> , 58, 115-123	7
425	Rational design of Lithium-Sulfur battery cathodes based on differential Atom Electronegativity. <b>2021</b> , 35, 577-585	8
424	Rational design of functional binder systems for high-energy lithium-based rechargeable batteries. <b>2021</b> , 35, 353-377	13
423	Trapping and catalytic conversion of polysulfides by kirkendall effect built hollow NiCo <sub>2</sub> S <sub>4</sub> nano-prisms for advanced sulfur cathodes in LiS battery. <b>2021</b> , 56, 4328-4340	3
422	Exploring lithium ion storage ability and cycling performance of the Cu <sub>2</sub> SnSe <sub>4</sub> nanoparticles encapsulated with nitrogen-doped carbon. <b>2021</b> , 540, 148435	2
421	Triple-phase interfaces of graphene-like carbon clusters on antimony trisulfide nanowires enable high-loading and long-lasting liquid Li <sub>2</sub> S <sub>6</sub> -based lithium-sulfur batteries. <b>2021</b> , 59, 599-607	14
420	Chickpea derived Co nanocrystal encapsulated in 3D nitrogen-doped mesoporous carbon: Pressure cooking synthetic strategy and its application in lithium-sulfur batteries. <b>2021</b> , 585, 328-336	11
419	Rational design of 3D hierarchical MXene@AlF <sub>3</sub> /Ni(OH) <sub>2</sub> nanohybrid for high-performance lithium-sulfur batteries. <b>2021</b> , 409, 128102	21
418	Yolk-shell porous carbon spheres@CoSe <sub>2</sub> nanosheets as multilayer defenses system of polysulfide for advanced Li-S batteries. <b>2021</b> , 413, 127521	19
417	Constructing covalent triazine-based frameworks to explore the effect of heteroatoms and pore structure on electrochemical performance in LiS batteries. <b>2021</b> , 407, 127141	9

4 <sup>16</sup>	Vapor deposition of aluminium oxide into N-rich mesoporous carbon framework as a reversible sulfur host for lithium-sulfur battery cathode. <b>2021</b> , 14, 131-138	12
4 <sup>15</sup>	Dipolar and catalytic effects of an Fe <sub>3</sub> O <sub>4</sub> based nitrogen-doped hollow carbon sphere framework for high performance lithium sulfur batteries. <b>2021</b> , 8, 1771-1778	7
4 <sup>14</sup>	Self-limiting lithiation of vanadium diboride nanosheets as ultra-stable mediators towards high-sulfur loading and long-cycle lithium sulfur batteries. <b>2021</b> , 5, 3134-3142	4
4 <sup>13</sup>	Tight bonding and high-efficiency utilization of S <sub>8</sub> moieties to enable ultra-stable and high-capacity alkali-metal conversion batteries. <b>2021</b> , 9, 6160-6171	2
4 <sup>12</sup>	Polymers in Lithium-Ion and Lithium Metal Batteries. <b>2021</b> , 11, 2003239	45
4 <sup>11</sup>	Balanced capture and catalytic ability toward polysulfides by designing MoO-CoMoO heterostructures for lithium-sulfur batteries. <b>2021</b> , 13, 15689-15698	6
4 <sup>10</sup>	Enhanced Performance of Lithium-Sulfur Batteries with Co-Doped g-C <sub>3</sub> N <sub>4</sub> Nanosheet-Based Separator. <b>2021</b> , 60, 1231-1240	4
4 <sup>09</sup>	Single atom catalysts supported on N-doped graphene toward fast kinetics in LiS batteries: a theoretical study. <b>2021</b> , 9, 12225-12235	18
4 <sup>08</sup>	Celebrating 20 years of. <i>Nano Letters</i> , <b>2021</b> , 21, 1-2	11.5 1
4 <sup>07</sup>	Triple functionalization of carved N-doped carbon nanoboxes with synergistic trimetallic sulphide for high performance lithium-sulphur batteries. <b>2021</b> , 9, 9028-9037	2
4 <sup>06</sup>	Electrochemically synthesized liquid-sulfur/sulfide composite materials for high-rate magnesium battery cathodes. <b>2021</b> , 9, 16585-16593	2
4 <sup>05</sup>	Separator Design Variables and Recommended Characterization Methods for Viable Lithium-Sulfur Batteries. <b>2021</b> , 6, 2001136	10
4 <sup>04</sup>	CoS <sub>2</sub> Nanospheres Anchored on 3D N-Doped Carbon Skeleton Derived from Bacterial Cellulose for Lithium-Sulfur Batteries. <b>2021</b> , 168, 020512	2
4 <sup>03</sup>	Single-Atom Iron and Doped Sulfur Improve the Catalysis of Polysulfide Conversion for Obtaining High-Performance Lithium-Sulfur Batteries. <b>2021</b> , 13, 7171-7177	17
4 <sup>02</sup>	Oxygen-Doped Carbon Nitride Tubes for Highly Stable Lithium-Sulfur Batteries. <b>2021</b> , 9, 2001057	4
4 <sup>01</sup>	Preparation and Electrochemical Performance of V <sub>2</sub> O <sub>5</sub> @N-CNT/S Composite Cathode Materials. <b>2021</b> , 8,	3
4 <sup>00</sup>	NiCo <sub>2</sub> S <sub>4</sub> /S Composites Used as Cathode Materials in Lithium-Sulfur Batteries with High Performance. <b>2021</b> , 16, 2150029	0
399	A short review on dissolved lithium polysulfide catholytes for advanced lithium-sulfur batteries. <b>2021</b> , 38, 461-474	10

398	Linking Solid Electrolyte Degradation to Charge Carrier Transport in the Thiophosphate-Based Composite Cathode toward Solid-State Lithium-Sulfur Batteries. <b>2021</b> , 31, 2010620	24
397	Incorporation of layered tin (IV) phosphate in graphene framework for high performance lithium-sulfur batteries. <b>2021</b> , 53, 99-108	6
396	Exploration of materials electrochemistry in rechargeable batteries using advanced in situ/operando x-ray absorption spectroscopy. <b>2021</b> , 3, 013001	2
395	Metal-Organic Framework-Based Sulfur-Loaded Materials.	3
394	Demystifying the catalysis in lithium-sulfur batteries: Characterization methods and techniques. <b>2021</b> , 1, 51-65	28
393	Enhanced catalytic conversion of polysulfides using high-percentage 1T-phase metallic WS <sub>2</sub> nanosheets for Li-S batteries. <b>2021</b> ,	2
392	Monolayer FeGeX (X = S, Se, and Te) as Highly Efficient Electrocatalysts for Lithium-Sulfur Batteries. <b>2021</b> , 13, 11845-11851	8
391	Online state estimation for a physics-based Lithium-Sulfur battery model. <b>2021</b> , 489, 229495	4
390	Super heating/cooling rate enabled by microwave shock on polymeric graphene foam for high performance Lithium-Sulfur batteries. <b>2021</b> , 173, 809-816	7
389	[email protected] Structured [email protected] Carbon as a Sulfur Host and Polysulfide Conversion Booster for Lithium/Sodium Sulfur Batteries. <b>2021</b> , 4, 3487-3494	6
388	ZnS-SnS@NC Heterostructure as Robust Lithiophilicity and Sulfiphilicity Mediator toward High-Rate and Long-Life Lithium-Sulfur Batteries. <b>2021</b> , 15, 7114-7130	118
387	The Si <sub>3</sub> N <sub>4</sub> /MoS <sub>2</sub> hetero-structure as an effective polysulfide regulator for high-performance lithium-sulfur battery. <b>2021</b> , 22, 100916	7
386	Three-dimensional printing of high-mass loading electrodes for energy storage applications. <b>2021</b> , 3, 631-647	12
385	Yolk-Shell NiCo <sub>2</sub> PX as a Bidirectional Catalyst for Liquid-Solid Processes in Advanced Lithium-Sulfur Batteries. <b>2021</b> , 8, 1605-1611	4
384	Double role of CoO Co <sub>4</sub> N hetero-nanocages as sulfur host for lithium-sulfur batteries. <b>2021</b> , 7, 1301-1301	0
383	Intralayered Ostwald Ripening-Induced Self-Catalyzed Growth of CNTs on MXene for Robust Lithium-Sulfur Batteries. <b>2021</b> , 17, e2007446	14
382	Enhanced sulfur utilization in lithium-sulfur batteries by hybrid modified separators. <b>2021</b> , 26, 102133	1
381	2021 roadmap on lithium sulfur batteries. <b>2021</b> , 3, 031501	32

380	Hierarchical Nanoreactor with Multiple Adsorption and Catalytic Sites for Robust Lithium-Sulfur Batteries. <b>2021</b> , 15, 6849-6860	23
379	Phosphorus-Doped Metal-Organic Framework-Derived CoS Nanoboxes with Improved Adsorption-Catalysis Effect for Li-S Batteries. <b>2021</b> , 13, 15226-15236	9
378	Cobalt Oxide/Graphene Nanosheets/Hexagonal Boron Nitride (Co <sub>3</sub> O <sub>4</sub> /CoO/GNS/h-BN) Catalyst for High Sulfur Utilization in LiS Batteries at Elevated Temperatures. <b>2021</b> , 35, 8365-8377	7
377	Boosting Catalytic Activity by Seeding Nanocatalysts onto Interlayers to Inhibit Polysulfide Shuttling in LiS Batteries. <b>2021</b> , 31, 2101980	42
376	Enhanced polysulfide conversion catalysis in lithium-sulfur batteries with surface cleaning electrolyte additives. <b>2021</b> , 410, 128284	19
375	Nitrogen-Doped Graphene Quantum Dots: Sulfiphilic Additives for the High-Performance LiS Cells. <b>2021</b> , 4, 3518-3525	7
374	Lithium-Sulfur Battery Cathode Design: Tailoring Metal-Based Nanostructures for Robust Polysulfide Adsorption and Catalytic Conversion. <b>2021</b> , e2008654	60
373	MXene Nanoflakes Confined in Multichannel Carbon Nanofibers as Electrocatalysts for LithiumSulfur Batteries. <b>2022</b> , 19,	1
372	Designing of multifunctional and flame retardant separator towards safer high-performance lithium-sulfur batteries. 1	4
371	Sandwich-like NOCC@S8/rGO composite as cathode for high energy lithium-sulfur batteries. <b>2021</b> , 220, 119747	6
370	Embedding FeC and FeN on a Nitrogen-Doped Carbon Nanotube as a Catalytic and Anchoring Center for a High-Areal-Capacity Li-S Battery. <b>2021</b> , 13, 20153-20161	11
369	The use of graphene and its composites to suppress the shuttle effect in lithium-sulfur batteries. <b>2021</b> , 36, 336-349	5
368	Material design and structure optimization for rechargeable lithium-sulfur batteries. <b>2021</b> , 4, 1142-1188	30
367	Function-convertible metal-organic crystal derived from liquid-solid interfacial reaction for lithium-sulfur batteries. <b>2021</b> , 491, 229593	5
366	Graphene-Based Nanomaterials as the Cathode for Lithium-Sulfur Batteries. <b>2021</b> , 26,	5
365	Organic polysulfanes grafted on porous graphene as an electrode for high-performance lithium organosulfur batteries. <b>2021</b> , 491, 229617	12
364	Ionic Additives to Increase Electrochemical Utilization of Sulfur Cathode for Li-S Batteries. <b>2021</b> , 12, 279-284	0
363	Two Competing Reactions of Sulfurized Polyacrylonitrile Produce High-Performance Lithium-Sulfur Batteries. <b>2021</b> , 13, 25002-25009	6



- 362 Challenges and promises of lithium metal anode by soluble polysulfides in practical lithium-sulfur batteries. **2021**, 45, 62-76 40
- 361 Tubular CoFeP@CN as a Mott-Schottky Catalyst with Multiple Adsorption Sites for Robust Lithium-Sulfur Batteries. **2021**, 11, 2100432 40
- 360 A triboelectric nanogenerator based on waste polyvinyl chloride for Morse code generator. **2021**, 322, 112633 2
- 359 Constructed conductive CoSe<sub>2</sub> nanoarrays as efficient electrocatalyst for high-performance Li-S battery. **2021**, 40, 3147 14
- 358 Nanotechnology for Sulfur Cathodes. **2021**, 15, 8087-8094 8
- 357 Antimonene Allotropes and Phases as Promising Anchoring Materials for Lithium-Sulfur Batteries. **2021**, 35, 9001-9009 4
- 356 A Synergistic Strategy with 3D Highly Conductive Carbon Matrix-Decorated with Low Loading of CdS Quantum Dots as a Sulfur Host for Advanced Li-S Batteries. **2021**, 8, 1642-1652 2
- 355 Metal-Organic-Framework-Derived Nanostructures as Multifaceted Electrodes in Metal-Sulfur Batteries. **2021**, 33, e2008784 21
- 354 SiO<sub>2</sub> blending polyetherimide separator modified with acetylene black/polyvinylpyrrolidone coating layer to enhance performance for lithium-sulfur batteries. **2021**, 45, 16551-16564 0
- 353 Immobilization and kinetic promotion of polysulfides by molybdenum carbide in lithium-sulfur batteries. **2021**, 411, 128563 14
- 352 Hierarchical cathode from hollow CoP embedded in graphene nanosheets to synergistically confine SeS<sub>2</sub> for advanced Li/SeS<sub>2</sub> batteries. **2021**, 867, 159089 0
- 351 Sandwiched Cathodes Assembled from CoS-Modified Carbon Clothes for High-Performance Lithium-Sulfur Batteries. **2021**, 8, e2101019 15
- 350 Advances in Lithium-Sulfur Batteries: From Academic Research to Commercial Viability. **2021**, 33, e2003666 77
- 349 Insight into Lithium-Sulfur Batteries with Novel Modified Separators: Recent Progress and Perspectives. **2021**, 35, 11089-11117 6
- 348 Linear-PEI-Derived Hierarchical Porous Carbon Nanonet Flakes Decorated with MoS<sub>2</sub> as Efficient Polysulfides Stabilization Interlayers for Lithium-Sulfur Battery. **2021**, 35, 10303-10314 5
- 347 Nonpolar Solvent-based Electrolytes with a Quasi-Solid-State Redox Reaction for Lithium-Sulfur Batteries. **2021**, 8, 2321-2328
- 346 New insights into the relationship between capacity fading and sulfur loading and electrolyte/sulfur ratio obtained from Li-S pouch cell. **2021**, 27, 3347 3
- 345 Self-Assembled Polyoxometalate Nanodots as Bidirectional Cluster Catalysts for Polysulfide/Sulfide Redox Conversion in Lithium-Sulfur Batteries. **2021**, 19

344	Bio-assisted engineering of hierarchical porous carbon nanofiber host in-situ embedded with iron carbide nanocatalysts toward high-performance LiS batteries. <b>2021</b> , 177, 60-70	15
343	Macroporous Multichannel Carbon Nanofibers Embedded with Co/Fe-N Electrocatalyst as the Sulfur Host for Boosting Polysulfides Conversion in Lithium-Sulfur Batteries. <b>2021</b> , 6, 5932-5940	1
342	Catalytic Hexadecachlorophthalocyanine Cobalt-Coated Host Materials for LiS Batteries. <b>2021</b> , 4, 7743-7750	0
341	Construction of multifunctional and flame retardant separator towards stable lithium-sulfur batteries with high safety. <b>2021</b> , 416, 129087	19
340	Nanoconfined Topochemical Conversion from MXene to Ultrathin Non-Layered TiN Nanomesh toward Superior Electrocatalysts for Lithium-Sulfur Batteries. <b>2021</b> , 17, e2101360	7
339	Cobalt sulfide quantum dot embedded in nitrogen/sulfur-doped carbon nanosheets as a polysulfide barrier in Li-S batteries. <b>2021</b> , 870, 159341	16
338	Enhancing Catalytic Conversion of Polysulfides by Hollow Bimetallic Oxide-Based Heterostructure Nanocages for Lithium-Sulfur Batteries. <b>2021</b> , 9, 10392-10402	2
337	Carbon fiber supported two-dimensional ZIF-7 interlayer for durable lithium-sulfur battery. <b>2021</b> , 870, 159412	9
336	Heterogeneous Mediator Enabling Three-Dimensional Growth of Lithium Sulfide for High-Performance Lithium-Sulfur Batteries.	5
335	Recent advance on Co-based materials for polysulfide catalysis toward promoted lithium-sulfur batteries.	0
334	Electrospun assisted antimony phosphate (SbPO <sub>4</sub> ) anode for elevated performance in sodium and lithium ion charge storage application. <b>2021</b> , 870, 159317	1
333	Synthesis of pompon-like ZnO microspheres as host materials and the catalytic effects of nonconductive metal oxides for lithium-sulfur batteries. <b>2021</b> , 99, 309-316	4
332	Lightweight Free-Standing 3D Nitrogen-Doped Graphene/TiN Aerogels with Ultrahigh Sulfur Loading for High Energy Density LiS Batteries. <b>2021</b> , 4, 7599-7610	5
331	Synergistic regulation of polysulfides immobilization and conversion by MOF-derived CoP-HNC nanocages for high-performance lithium-sulfur batteries. <b>2021</b> , 85, 106011	24
330	DFT study of chemical reactivity parameters of lithium polysulfide molecules Li <sub>2</sub> Sn(188) in gas and solvent phase. <b>2021</b> , 1202, 113323	3
329	Defect-Rich Amorphous Iron-Based Oxide/Graphene Hybrid-Modified Separator toward the Efficient Capture and Catalysis of Polysulfides. <b>2021</b> , 13, 41698-41706	9
328	Realizing High-Performance Li-S Batteries through Additive Manufactured and Chemically Enhanced Cathodes.. <b>2021</b> , 5, e2100176	5
327	SnS <sub>2</sub> monolayer and SnS <sub>2</sub> /graphene heterostructure as promising anchoring materials for lithium-sulfur batteries: A computational study. <b>2021</b> , 548, 111220	6

326	Incorporating Cobalt Nanoparticles in Nitrogen-Doped Mesoporous Carbon Spheres through Composite Micelle Assembly for High-Performance Lithium-Sulfur Batteries. <b>2021</b> , 13, 38604-38612	7
325	Recent Advances and Applications Towards Emerging Lithium-Sulfur Batteries: Working Principles and Opportunities.	8
324	Facet-Engineered Tungsten Disulfide for Promoting Polysulfide Electrocatalysis in Lithium-Sulfur Batteries. <b>2021</b> , 60, 12883-12892	3
323	NbSe <sub>2</sub> Meets C <sub>2</sub> N: A 2D-2D Heterostructure Catalysts as Multifunctional Polysulfide Mediator in Ultra-Long-Life Lithium-Sulfur Batteries. <b>2021</b> , 11, 2101250	18
322	Hollow Spherical MoO <sub>3</sub> : An Effective Electrocatalyst of Polyselenides for Lithium-Selenium Batteries. <b>2021</b> , 4, 10203-10212	1
321	Three-dimensional architectures based on carbon nanotube bridged Ti <sub>2</sub> C MXene nanosheets for Li-S batteries. <b>2021</b> , 57, 139-145	9
320	3D CoS <sub>2</sub> /rGO aerogel as trapping-catalyst sulfur host to promote polysulfide conversion for stable Li-S batteries. <b>2021</b> , 873, 159780	14
319	Hierarchical nMOF-867/MXene Nanocomposite for Chemical Adsorption of Polysulfides in Lithium-Sulfur Batteries. <b>2021</b> , 4, 8231-8241	2
318	Embedding Cobalt Atom Clusters in CNT-Wired MoS <sub>2</sub> Tube-in-Tube Nanostructures with Enhanced Sulfur Immobilization and Catalyzation for Li-S Batteries. <b>2021</b> , 17, e2102710	14
317	Facile Lotus Blooming Strategy to Synthesize a 3D Carbon Nanosheet/Carbon Nanotube Framework with Embedded Co Nanocrystals for High-Performance Lithium-Sulfur Batteries.	1
316	MoC Electrocatalysts for Kinetically Boosting Polysulfide Conversion in Quasi-Solid-State Lithium-Sulfur Batteries. <b>2021</b> , 13, 45651-45660	2
315	Basal-Plane-Activated Molybdenum Sulfide Nanosheets with Suitable Orbital Orientation as Efficient Electrocatalysts for Lithium-Sulfur Batteries. <b>2021</b> , 15, 16515-16524	7
314	A saccharide-based binder for efficient polysulfide regulations in Li-S batteries. <b>2021</b> , 12, 5375	16
313	Recent advances in flexible batteries: From materials to applications. 1	8
312	A 3D Graphene/WO <sub>3</sub> nanowire composite with enhanced capture and polysulfides conversion catalysis for high-performance Li-S batteries. <b>2021</b> , 182, 335-347	5
311	Cooperative catalytic interface accelerates redox kinetics of sulfur species for high-performance Li-S batteries. <b>2021</b> , 40, 139-149	14
310	Efficient Polysulfide Trapping and Conversion on N-Doped CoTe via Enhanced Dual-Anchoring Effect. <b>2021</b> , 17, e2102962	1
309	Plasma-Engineered Organic Dyes as Efficient Polysulfide-Mediating Layers for High Performance Lithium-Sulfur Batteries. <b>2021</b> , 132679	1

308	Increasing sulfur utilization in lithium-sulfur batteries by a Co-MOF-74@MWCNT interlayer. <b>2021</b> , 60, 186-193	7
307	Defect-engineered bilayer MOFs separator for high stability lithium-sulfur batteries. <b>2021</b> , 874, 159917	6
306	Sulfur-Rich Polymers Based Cathode with Epoxy/Ally Dual-Sulfur-Fixing Mechanism for High Stability Lithium-Sulfur Battery. <b>2021</b> , 15, 15027-15038	11
305	Promoting electrochemical kinetics of Li-S batteries with C@SnS <sub>2</sub> modified separator via synergic effect between porous carbon matrix and polar SnS <sub>2</sub> . <b>2021</b> , 390, 138829	2
304	Be water strategy of liquid lithium sulfide enables 0.2 V potential barrier for high-performance lithium-sulfur batteries. <b>2021</b> , 21, 100793	4
303	Array-Structured Double-Ion Cooperative Adsorption Sites as Multifunctional Sulfur Hosts for Lithium-Sulfur Batteries with Low Electrolyte/Sulfur Ratio. <b>2021</b> , 15, 16322-16334	2
302	Fabrication of ultrafine ZnFe <sub>2</sub> O <sub>4</sub> nanoparticles decorated on nitrogen doped carbon nanofibers composite for efficient adsorption/electrocatalysis effect of lithium-sulfur batteries. <b>2021</b> , 394, 139126	10
301	Recent progress in sulfur cathodes for application to lithium-sulfur batteries. <b>2021</b> , 58, 1-15	9
300	A Cost- and Energy Density-Competitive Lithium-Sulfur Battery. <b>2021</b> , 41, 588-598	9
299	Hybrid cathode composed of pyrite-structure CoS <sub>2</sub> hollow polyhedron and Ketjen black@sulfur materials propelling polysulfide conversion in lithium sulfur batteries. <b>2021</b> , 47, 27122-27131	9
298	Rechargeable metal (Li, Na, Mg, Al)-sulfur batteries: Materials and advances. <b>2021</b> , 61, 104-134	22
297	Large-scale synthesis of Fe <sub>9</sub> S <sub>10</sub> /Fe <sub>3</sub> O <sub>4</sub> @C heterostructure as integrated trapping-catalyzing interlayer for highly efficient lithium-sulfur batteries. <b>2021</b> , 422, 130049	7
296	Maximizing catalytically active surface gallium for electrocatalysis of lithium polysulfides in lithium-sulfur batteries by silica@gallium core-shell particles. <b>2021</b> , 563, 150381	3
295	Improving poisoning resistance of electrocatalysts via alloying strategy for high-performance lithium-sulfur batteries. <b>2021</b> , 41, 248-254	19
294	Modified polysulfides conversion catalysis and confinement by employing La <sub>2</sub> O <sub>3</sub> nanorods in high performance lithium-sulfur batteries. <b>2021</b> , 47, 27012-27021	9
293	Multi-scale uniform Li regulation triggered by tunable electric field distribution on oxygen-functionalized porous framework for flexible Li-S full batteries. <b>2021</b> , 42, 68-77	14
292	Contribution to the understanding of the performance differences between commercial current collectors in Li-S batteries. <b>2021</b> , 62, 295-306	6
291	Porous N-doped carbon nanofibers assembled with nickel ferrite nanoparticles as efficient chemical anchors and polysulfide conversion catalyst for lithium-sulfur batteries. <b>2021</b> , 601, 209-219	29

290	Appreciating the role of polysulfides in lithium-sulfur batteries and regulation strategies by electrolytes engineering. <b>2021</b> , 42, 645-678	5
289	First-Principle study of lithium polysulfide adsorption on heteroatom doped graphitic carbon nitride for Lithium-Sulfur batteries. <b>2021</b> , 565, 150378	6
288	Graphene oxide-wrapped cobalt-doped oxygen-deficient titanium dioxide hollow spheres clusters as efficient sulfur immobilizers for lithium-sulfur batteries. <b>2021</b> , 397, 139264	4
287	Entrapping polysulfides via S, N-coordinated supermolecule towards enhanced Li-S kinetics. <b>2021</b> , 426, 131355	2
286	Immobilizing Polysulfide via Multiple Active Sites in W18O49 for Li-S batteries by Oxygen Vacancy Engineering. <b>2021</b> , 43, 422-429	7
285	Nano storage-boxes constructed by the vertical growth of MoS2 on graphene for high-performance Li-S batteries. <b>2022</b> , 66, 91-99	3
284	CoS-TiO@C Core-Shell fibers as cathode host material for High-Performance Lithium-Sulfur batteries. <b>2022</b> , 607, 655-661	6
283	Co nanoparticles anchored on the Co-Nx active centers grafted nitrogen-doped graphene with enhanced performance for lithium-sulfur battery. <b>2022</b> , 890, 161552	2
282	The formation of crystalline lithium sulfide on electrocatalytic surfaces in lithium-sulfur batteries. <b>2022</b> , 64, 568-573	10
281	YF/CoF co-doped 1D carbon nanofibers with dual functions of lithium polysulfides adsorption and efficient catalytic activity as a cathode for high-performance Li-S batteries. <b>2022</b> , 607, 922-932	2
280	Porous 3D nitrogen-doped rGO/Co-Ni-S composite modified separator for high-capacity and stable lithium-sulfur batteries. <b>2022</b> , 145, 111550	1
279	Yttrium oxide nanorods as electrocatalytic polysulfides traps for curbing shuttle effect in lithium-sulfur batteries. <b>2022</b> , 891, 162074	9
278	Templated spherical coassembly strategy to fabricate MoS2/C hollow spheres with physical/chemical polysulfides trapping for lithium-sulfur batteries. <b>2022</b> , 98, 136-142	2
277	An integrated flexible film as cathode for High-Performance Lithium-Sulfur battery. <b>2022</b> , 606, 1627-1635	3
276	Cotton-like CNTs/(Ni-P)/S composites with enhanced electrochemical performance of lithium-sulfur battery. <b>2022</b> , 145, 111529	2
275	In situ N-doped CoS2 anchored on MXene toward an efficient bifunctional catalyst for enhanced lithium-sulfur batteries. <b>2022</b> , 427, 131792	5
274	Interfacial design of thick sulfur cathodes to achieve high energy density and stability. <b>2021</b> , 9, 17129-17142	3
273	A review of size engineering-enabled electrocatalysts for LiS chemistry.	2

272	Polar NiFe layered double hydroxide nanosheets for enhancing the performance of lithium-sulfur batteries. <b>2021</b> , 5, 5780-5789	0
271	V <sub>2</sub> C/VO <sub>2</sub> nanoribbon intertwined nanosheet dual heterostructure for highly flexible and robust lithium-sulfur batteries. <b>2021</b> , 9, 21429-21439	8
270	Emerging Catalysts to Promote Kinetics of Lithium-Sulfur Batteries. <b>2021</b> , 11, 2002893	85
269	High-performance lithium-sulfur batteries enabled by regulating LiS deposition. <b>2021</b> , 23, 21385-21398	3
268	Efficient polysulfide trapping in lithium-sulfur batteries using ultrathin and flexible BaTiO <sub>3</sub> /graphene oxide/carbon nanotube layers. <b>2021</b> , 13, 6863-6870	1
267	Single Atom Catalysts for Fuel Cells and Rechargeable Batteries: Principles, Advances, and Opportunities. <b>2021</b> , 15, 210-239	65
266	Strategy of Enhancing the Volumetric Energy Density for Lithium-Sulfur Batteries. <b>2021</b> , 33, e2003955	66
265	Highly Dispersed Cobalt Clusters in Nitrogen-Doped Porous Carbon Enable Multiple Effects for High-Performance LiS Battery. <b>2020</b> , 10, 1903550	114
264	High-performance LiS battery cathode with catalyst-like carbon nanotube-MoP promoting polysulfide redox. <b>2017</b> , 10, 3698-3705	95
263	Accelerated polysulfide redox kinetics revealed by ternary sandwich-type S@Co/N-doped carbon nanosheet for high-performance lithium-sulfur batteries. <b>2018</b> , 128, 86-96	73
262	Low temperature performance enhancement of high-safety Lithium-Sulfur battery enabled by synergetic adsorption and catalysis. <b>2020</b> , 353, 136470	6
261	Catalytic Effects in the Cathode of Li-S Batteries: Accelerating polysulfides redox conversion. <b>2020</b> , 2, 100036	16
260	Research Progress on Improving the Sulfur Conversion Efficiency on the Sulfur Cathode Side in Lithium-Sulfur Batteries. <b>2020</b> , 59, 20979-21000	4
259	Enhanced Sulfur Redox and Polysulfide Regulation via Porous VN-Modified Separator for Li-S Batteries. <b>2019</b> , 11, 5687-5694	80
258	Electrocatalyzing S Cathodes Multisulfophilic Sites for Superior Room-Temperature Sodium-Sulfur Batteries. <b>2020</b> , 14, 7259-7268	61
257	In situ optical spectroscopy characterization for optimal design of lithium-sulfur batteries. <b>2019</b> , 48, 5432-5453	63
256	Revisiting the positive roles of liquid polysulfides in alkali metal-sulfur electrochemistry: from electrolyte additives to active catholyte. <b>2019</b> , 11, 21595-21621	4
255	An efficient polysulfide trapper of an nitrogen and nickel-decorating amyllum scaffold-coated separator for ultrahigh performance in lithium-sulfur batteries. <b>2020</b> , 8, 1238-1246	16

254	Recent advances of hollow-structured sulfur cathodes for lithium-sulfur batteries. <b>2020</b> , 4, 2517-2547	7
253	Complete encapsulation of sulfur through interfacial energy control of sulfur solutions for high-performance Li-S batteries. <b>2020</b> , 117, 12686-12692	46
252	Supercooled liquid sulfur maintained in three-dimensional current collector for high-performance Li-S batteries. <b>2020</b> , 6, eay5098	52
251	Polysulfide Electrocatalysis on Framework Porphyrin in High-Capacity and High-Stable Lithium-Sulfur Batteries. 128-137	96
250	Selective Adsorption and Electrocatalysis of Polysulfides through Hexatomic Nickel Clusters Embedded in N-Doped Graphene toward High-Performance Li-S Batteries. <b>2020</b> , 2020, 5714349	11
249	Revamping Lithium-Sulfur Batteries for High Cell-Level Energy Density by Synergistic Utilization of Polysulfide Additives and Artificial Solid-Electrolyte Interphase Layers. <b>2021</b> , 33, e2104246	2
248	Flower-like heterostructured MoP/MoS <sub>2</sub> hierarchical nanoreactor enabling effective anchoring for LiPS and enhanced kinetics for high performance LiS batteries. <b>2022</b> , 642, 120003	3
247	Bifunctional Catalytic Effect of CoSe <sub>2</sub> for Lithium-Sulfur Batteries: Single Doping versus Dual Doping. 2107838	12
246	Ni <sub>2</sub> P/carbon nanotube nanocomposite as host material for high performance lithium-sulfur battery cathode. <b>2021</b> , 553, 111383	1
245	Multisize CoS Particles Intercalated/Coated-Montmorillonite as Efficient Sulfur Host for High-Performance Lithium-Sulfur Batteries. <b>2021</b> ,	2
244	Supercritical CO <sub>2</sub> Deposition of Cathode Materials for Lithium-Sulfur Battery. <b>2017</b> , 06, 52-59	
243	Rechargeable Lithium Metal Batteries. <b>2019</b> , 147-203	
242	CNTs decorated Cu-BTC with catalytic effect for high-stability lithium-sulfur batteries. <b>2021</b> ,	0
241	Boosting polysulfides immobilization and conversion through CoS catalytic sites loaded carbon fiber for robust lithium sulfur batteries. <b>2022</b> , 608, 963-972	6
240	WN <sub>0.67</sub> -Embedded N-doped Graphene-Nanosheet interlayer as Efficient Polysulfide Catalyst and Absorbant for High-Performance Lithium-Sulfur Batteries. <b>2021</b> , 133439	4
239	Crystal Facet Engineering Induced Active Tin Dioxide Nanocatalysts for Highly Stable Lithium-Sulfur Batteries. 2102995	11
238	Valence mediation of samarium towards polysulfides as a redox mediator for high performance LiS batteries. <b>2020</b> , 17, 100484	1
237	An individual sandwich hybrid nanostructure of cobalt disulfide in-situ grown on N doped carbon layer wrapped on multi-walled carbon nanotubes for high-efficiency lithium sulfur batteries. <b>2021</b> ,	2



236	Sulfur Compensation: A Promising Strategy against Capacity Decay in Li-S Batteries. <b>2021</b> ,	1
235	The enhanced confinement effect of double shell hollow mesoporous spheres assembled with nitrogen-doped copper cobaltate nanoparticles for enhancing lithium-sulfur batteries. <b>2021</b> , 404, 139597	1
234	Catalytic materials for lithium-sulfur batteries: mechanisms, design strategies and future perspective. <b>2021</b> ,	14
233	Catalytic Mo <sub>2</sub> C decorated N-doped honeycomb-like carbon network for high stable lithium-sulfur batteries. <b>2021</b> , 133683	5
232	An Electrochemically Switched Ion Exchange ZrP/PPy Film as a Synergistically Catalytic and Anchoring Material towards Lithium-Sulfur Battery Design. <b>2021</b> , 139609	1
231	Interlinked Carbon Nanocages-Coated Separator as an Efficient Trap for Soluble Polysulfides in a Lithium-Sulfur Battery. <b>2021</b> , 35, 19843-19848	1
230	Polysulfide Catalytic Materials for Fast-Kinetic Metal-Sulfur Batteries: Principles and Active Centers. <b>2021</b> , 9, e2102217	7
229	Accelerating Sulfur Redox Reactions by Topological Insulator Bi <sub>2</sub> Te <sub>3</sub> for High-Performance Li-S Batteries. 2109413	6
228	An integrated approach to configure rGO/VS <sub>4</sub> /S composites with improved catalysis of polysulfides for advanced lithium-sulfur batteries. <b>2021</b> ,	1
227	Construction of KB@ZIF-8/PP Composite Separator for Lithium-Sulfur Batteries with Enhanced Electrochemical Performance. <b>2021</b> , 13,	1
226	MOF-derived Cobalt Disulfide/Nitrogen-doped Carbon Composite Polyhedrons Linked with Multi-walled Carbon Nanotubes as Sulfur Hosts for Lithium-Sulfur Batteries. <b>2021</b> , 133924	0
225	A Perspective on Li/S Battery Design: Modeling and Development Approaches. <b>2021</b> , 7, 82	2
224	Efficient capture and conversion of polysulfides by zinc protoporphyrin framework-embedded triple-layer nanofiber separator for advanced Li-S batteries. <b>2021</b> , 609, 43-53	1
223	Lithium-Sulfur Battery Discharge Optimization using a Thermally-Coupled Equivalent Circuit Model. <b>2021</b> , 54, 399-405	
222	N, S-doped graphene derived from graphene oxide and thiourea-formaldehyde resin for high stability lithium-sulfur batteries.. <b>2022</b> ,	1
221	Synthesis of Titanium Molybdenum Nitride-Decorated Electrospun Carbon Nanofiber Membranes as Interlayers to Suppress Polysulfide Shuttling in Lithium-Sulfur Batteries.	3
220	A facile synthesis of stable titanium carbide-decorated carbon nanofibers as electrocatalytic membrane for high-performance lithium-sulfur batteries. 1	1
219	In-situ constructed accordion-like Nb <sub>2</sub> C/Nb <sub>2</sub> O <sub>5</sub> heterostructure as efficient catalyzer towards high-performance lithium-sulfur batteries. <b>2022</b> , 520, 230902	4

218	Polaron hopping-mediated dynamic interactive sites boost sulfur chemistry for flexible lithium-sulfur batteries. <b>2022</b> , 45, 840-850	6
217	Elastic three-dimensional Fe-doped polypyrrole aerogel current collector for high-loading and high-energy-density lithium-sulfur batteries. <b>2022</b> , 899, 163298	2
216	Titanium dioxide nanotube arrays (TNTAs) as an effective electrocatalyst interlayer for sustainable high-energy density lithium-sulfur batteries. <b>2022</b> , 899, 163268	1
215	Double-layered hollow carbon sphere with large interlayer space combined with Co-SnS cat. as efficient sulfur hosts for Li-S batteries. <b>2022</b> , 901, 163608	0
214	Addressing the Prominent Li + Intercalation Process of Metal Sulfide Catalyst in Li-S Batteries. 2101699	1
213	MXene-based materials for lithium-sulfur and multivalent rechargeable batteries. <b>2022</b> , 343-369	1
212	An encapsulating lithium-polysulfide electrolyte for practical lithium-sulfur batteries. <b>2022</b> ,	13
211	Covalently Grafting Sulfur-Containing Polymers to Carbon Nanotubes Enhances the Electrochemical Performance of Sulfur Cathodes. <b>2022</b> , 4, 939-949	2
210	A flame-retardant polyimide interlayer with polysulfide lithium traps and fast redox conversion towards safety and high sulfur utilization Li-S batteries.. <b>2021</b> ,	2
209	In situ tailored strategy to remove capping agents from copper sulfide for building better lithium-sulfur batteries.	2
208	Designing principles of advanced sulfur cathodes toward practical lithium-sulfur batteries. e42	6
207	Functional catalysts for polysulfide conversion in Li-S batteries: from micro/nanoscale to single atom. <b>2022</b> , 41, 1080	2
206	Single-dispersed polyoxometalate clusters embedded on multilayer graphene as a bifunctional electrocatalyst for efficient Li-S batteries.. <b>2022</b> , 13, 202	16
205	Uniformly Controlled Treble Boundary Using Enriched Adsorption Sites and Accelerated Catalyst Cathode for Robust Lithium-Sulfur Batteries. 2102805	9
204	Functionalized Carbon-Based Composite Materials for Cathode Application of Lithium-Sulfur Batteries. <b>2022</b> , 80, 89	
203	Engineering Pt heterogeneous catalysts for accelerated liquid-solid redox conversion in Li-S batteries. <b>2022</b> ,	3
202	In situ preparation of chromium carbide-modified carbon nanofibers as functional electrocatalyst for polysulfide reduction in lithium/sulfur batteries. 1	3
201	Physical and Chemical Adsorption of Polysulfides. <b>2022</b> , 111-163	

200 Catalytic Conversion of Polysulfides in LiS Batteries. **2022**, 165-223

199 Application and research of current collector for lithium-sulfur battery. **2022**, 28, 1713

198 Customized Structure Design and Functional Mechanism Analysis of Carbon Spheres for Advanced Lithium-Sulfur Batteries.. **2022**, e2104469

197 TiH Nanodots Exfoliated via Facile Sonication as Bifunctional Electrocatalysts for Li-S Batteries.. **2022**,

196 A High Conductivity One-Dimensional Ed Conjugated Metal-Organic Framework with Efficient Polysulfide Trapping-Diffusion-Catalysis in Lithium-Sulfur Batteries.. **2022**, e2108835

195 Oxygen-defective MnO<sub>2</sub> decorated carbon nanotube as an effective sulfur host for high performance lithium sulfur battery. **2022**, 33, 103396

194 Highly catalytic porous MoN nanosheets anchored carbon microtubes interlayer for lithium-sulfur batteries. **2022**, 24, 100941

193 Designing thermotolerant and flame-resistant PAN-based separator via surface engineering with heteroatoms doped carbon framework encapsulated with CoS<sub>2</sub> nanocatalysts towards safe lithium-sulfur batteries. **2022**, 233, 109644

192 Exploring the Janus structure to improve kinetics in sulfur conversion of Li-S batteries. **2022**, 95, 106980

191 The effect of NiO-Ni<sub>3</sub>N interfaces in in-situ formed heterostructure ultrafine nanoparticles on enhanced polysulfide regulation in lithium-sulfur batteries. **2022**, 68, 762-770

190 Separator engineering toward practical Li-S batteries: Targeted electrocatalytic sulfur conversion, lithium plating regulation, and thermal tolerance. **2022**, 95, 106982

189 High sulfur-doped hard carbon anode from polystyrene with enhanced capacity and stability for potassium-ion storage. **2022**, 68, 688-698

188 Implanting Single Zn Atoms Coupled with Metallic Co Nanoparticles into Porous Carbon Nanosheets Grafted with Carbon Nanotubes for High-Performance Lithium-Sulfur Batteries. 2200424

187 Low-Cost Biomass-Gel-Induced Conductive Polymer Networks for High-Efficiency Polysulfide Immobilization and Catalytic Conversion in LiS Batteries.

186 Catalytic polysulfide conversion in lithium-sulfur batteries by platinum nanoparticles supported on carbonized microspheres. **2022**, 435, 135112

185 Ternary Transition Metal Sulfide as High Real Energy Cathode for Lithium-Sulfur Pouch Cell Under Lean Electrolyte Conditions.. **2022**, 6, e2101402

184 High-Index Faceted Nanocrystals as Highly Efficient Bifunctional Electrocatalysts for High-Performance Lithium-Sulfur Batteries.. **2021**, 14, 40

183 The Presolvation Strategy of Li<sub>2</sub>S Cathodes for Lithium-Sulfur Batteries: A Review.

182	Computational screening of functionalized MXenes to catalyze the solid and non-solid conversion reactions in cathodes of lithium-sulfur batteries.. <b>2022</b> ,	0
181	Dispersing Single-Layered Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> Nanosheets in Hierarchically-Porous Membrane for High-Efficiency Li <sup>+</sup> Transporting and Polysulfide Anchoring in Li-S Batteries.	
180	Understanding the interactions between lithium polysulfides and anchoring materials in advanced lithium-sulfur batteries using density functional theory.. <b>2022</b> ,	3
179	Enhanced Electrochemical Kinetics on Ni <sub>2</sub> P Polar Mediators Integrated with Graphene for Lithium-Sulfur Batteries. 2102142	0
178	In-situ constructed three-dimensional MoS <sub>2</sub> /MoN heterostructure as the cathode of lithium-sulfur battery. <b>2022</b> , 41, 1743-1752	3
177	A Highly Efficient Sulfur Host Enabled by Nitrogen/Oxygen Dual-Doped Honeycomb-Like Carbon for Advanced Lithium-Sulfur Batteries.. <b>2022</b> , e2107380	4
176	Robust Lithium-Sulfur Batteries Enabled by Highly Conductive WSe <sub>2</sub> -Based Superlattices with Tunable Interlayer Space. 2201322	5
175	Recent Advances and Strategies toward Polysulfides Shuttle Inhibition for High-Performance Li-S Batteries.. <b>2022</b> , e2106004	14
174	In Situ UV-Vis Analysis of Polysulfide Shuttling in Ionic Liquid-Based Li-FeS <sub>2</sub> Batteries. <b>2022</b> , 126, 5101-5111	1
173	Encapsulating sulphur inside Magnéli phase Ti <sub>4</sub> O <sub>7</sub> nanotube array for high performance lithium sulphur battery cathode.	
172	Role of Ferroelectric InSe in Polysulfide Shuttling and Charging/Discharging Kinetics in Lithium/Sodium-Sulfur Batteries.. <b>2022</b> ,	1
171	Review Advances in Rechargeable Li-S Full Cells.	0
170	High electrochemical activity of Li <sub>2</sub> S <sub>2</sub> linking two-dimensional tungsten boride nanosheet enables high-loading and long-lasting lithium-sulfur batteries. <b>2022</b> , 25, 100970	1
169	ZnFe <sub>2</sub> O <sub>4</sub> hollow rods enabling accelerated polysulfide conversion for advanced lithium-sulfur batteries. <b>2022</b> , 414, 140231	1
168	Configurational and structural design of separators toward shuttling-free and dendrite-free lithium-sulfur batteries: A review. <b>2022</b> , 47, 629-648	7
167	Selective ion transport of catalytic hybrid aerofilm interlayer for long-stable Li-S batteries. <b>2022</b> , 47, 472-481	4
166	Accelerating conversion of LiPSs on strain-induced MXene for high-performance Li-S battery. <b>2022</b> , 439, 135679	1
165	VC@NCNTs: Bidirectional catalyst for fast charging Lithium-sulfur batteries. <b>2022</b> , 442, 135940	1

- 164 Enhanced Electrochemical Performance of MOF-Derived Nitrogen-Enriched Porous Carbon Coated with Ag as the Cathode for Lithium-Sulfur Batteries. **2021**, 16,
- 163 Engineering a TiNbO-Based Electrocatalyst on a Flexible Self-Supporting Sulfur Cathode for Promoting Li-S Battery Performance.. **2021**, 1
- 162 A Highly Efficient Ion and Electron Conductive Interlayer To Achieve Low Self-Discharge of Lithium-Sulfur Batteries.. **2021**, 4
- 161 Surface Gelation on Disulfide Electrocatalysts in LithiumSulfur Batteries. **2022**, 134,
- 160 CoNiO /Co N Heterostructure Nanowires Assisted Polysulfide Reaction Kinetics for Improved Lithium-Sulfur Batteries. **2021**, e2104375 8
- 159 WSe 2 Flakelets on N-Doped Graphene for Accelerating Polysulfide Redox and Regulating Li Plating. **2022**, 134, 0
- 158 Surface Gelation on Disulfide Electrocatalysts in Lithium-Sulfur Batteries. **2021**, 7
- 157 WSe2 Flakelets on N-doped Graphene for Accelerating Polysulfide Redox and Regulating Li Plating. **2021**, 9
- 156 In situ enhance lithium polysulfides redox kinetics by carbon cloth/MoO3 self-standing electrode for lithiumSulfur battery. 1 0
- 155 High-Density Oxygen Doping ofConductive Metal Sulfides forBetterPolysulfide Trapping and Li S-S Redox Kinetics in High Areal Capacity Lithium-Sulfur Batteries.. **2022**, e2200840 2
- 154 Highly active CeO2-x/Fe interfaces enable fast redox conversion of polysulfides for high-performance lithium-sulfur batteries. **2022**, 140402 0
- 153 Data\_Sheet\_1.docx. **2020**,
- 152 The Study on the Electrochemical Performance of Lithium-Sulfur Battery Cathode Based on Vanadium Sulfide/Reduced Graphene Oxide. **2022**, 12, 352-361
- 151 Nanostructured additives and binders for sulfur cathodes. **2022**, 453-485
- 150 Enhanced Catalysis of LIS3Radical-to-Polysulfide Interconversion via Increased Sulfur Vacancies in LithiumSulfur Batteries. 3
- 149 Design of nanostructured sulfur cathodes for high-performance lithiumSulfur batteries. **2022**, 425-452
- 148 A High-Efficiency Ws2 Nanosheets on N-Doped Graphene Electrocatalyst with Dual-Function of Preventing Shuttling and Accelerating Polysulfides Conversion in Li-S Batteries.
- 147 GrapheneSulfur composite cathodes. **2022**, 271-288

- 146 Polymeric nanocomposites for lithium-sulfur batteries. **2022**, 389-424
- 145 ??????????????. **2022**, 0
- 144 Towards Practical High-Energy-Density Lithium-Sulfur Pouch Cells: A Review.. **2022**, e2201555 12
- 143 Flexible NiCo<sub>2</sub>S<sub>4</sub>-Hollow Carbon Nanofibers Electrocatalytic Membrane as an Advanced Interlayer for Lithium-Sulfur Batteries. **2022**, 129179 0
- 142 Tetrathiafulvalene as a multifunctional electrolyte additive for simultaneous interface amelioration, electron conduction, and polysulfide redox regulation in lithium-sulfur batteries. **2022**, 536, 231482 0
- 141 Dimension-controlled N-doped graphitic carbon nanostructures through low-temperature metal-catalyzed transformation from C<sub>3</sub>N<sub>4</sub> for high-performance electrochemical barrier in lithium-sulfur batteries. **2022**, 196, 304-312 0
- 140 V-Substitution Function on Polyoxometalate Catalyst for Rapid Conversion of Polyselenides in Li-Se Batteries.
- 139 Effects of catalysis and separator functionalization on high energy lithium sulfur batteries: A complete review. 1
- 138 ZnFeO-NiP Mott-Schottky Heterojunctions to Promote Kinetics for Advanced Li-S Batteries.. **2022**, 1
- 137 CoS<sub>2</sub>@montmorillonite as an efficient separator coating for high-performance lithium-sulfur batteries. 1
- 136 Nanotechnology and recycling, remanufacturing, and reusing battery. **2022**, 53-78 0
- 135 N/O dual-doped hierarchical porous carbon boosting cathode performance of lithium-sulfur batteries. **2022**, 12, 337-346
- 134 Hollow Ni<sub>3</sub>Se<sub>4</sub> with High Tap Density as a Carbon-Free Sulfur Immobilizer to Realize High Volumetric and Gravimetric Capacity for Lithium-Sulfur Batteries. 1
- 133 Design Strategies of High-Performance Positive Materials for Nonaqueous Rechargeable Aluminum Batteries: From Crystal Control to Battery Configuration. 2201362 1
- 132 The Effect of Compaction Density of Sulfur/Carbon Cathodes on the Practical Application of Li-S Pouch Cells.
- 131 Mo-O-C Between MoS<sub>2</sub> and Graphene Toward Accelerated Polysulfide Catalytic Conversion for Advanced Lithium-Sulfur Batteries. 2201579 3
- 130 Discovery of Dual-Functional Amorphous Titanium Suboxide to Promote Polysulfide Adsorption and Regulate Sulfide Growth in Li-S Batteries. 2200958 0
- 129 Iron (Fe, Ni, Co)-based transition metal compounds for lithium-sulfur batteries: mechanism, progress and prospects. **2022**, 2

- 128 Kinetics of polysulfide on metal-sulfur batteries. **2022**, 679-713
- 127 Intermolecular Adsorption-Pairing Synergy for Accelerated Polysulfide Redox Reactions Towards Lithium-Sulfur Battery with High Stability.
- 126 Function-directed design of battery separators based on microporous polyolefin membranes. 4
- 125 Engineering the interface between separators and cathodes to suppress polysulfide shuttling in lithium-sulfur batteries. **2022**, 37, 527-543 1
- 124 Achieving job-synergistic polysulfides adsorption-conversion within hollow structured MoS<sub>2</sub>/Co<sub>4</sub>S<sub>3</sub>/C heterojunction host for long-life lithium-sulfur batteries. **2022**,
- 123 Electrocatalyst Modulation toward Bidirectional Sulfur Redox in Li-S Batteries: From Strategic Probing to Mechanistic Understanding. 2201056 8
- 122 Two-dimensional host materials for lithium-sulfur batteries: A review and perspective. **2022**, 50, 696-717 1
- 121 A high-efficiency WS<sub>2</sub> nanosheets on N-doped graphene electrocatalyst with dual-function of preventing shuttling and accelerating polysulfides conversion in Li-S batteries. **2022**, 599, 154022 0
- 120 Phosphorus modulated porous CeO<sub>2</sub> nanocrystallines for accelerated polysulfide catalysis in advanced Li-S batteries. **2022**, 131, 212-220 0
- 119 Dynamic Intercalation/Conversion Site Supported Ultrathin 2D Mesoporous SnO<sub>2</sub>/SnSe<sub>2</sub> Hybrid as Bifunctional Polysulfide Immobilizer and Lithium Regulator for Lithium-Sulfur Chemistry. 4
- 118 In Situ Construction of CeO<sub>2</sub>-Incorporated Hybrid Covalent Organic Frameworks for Highly Efficient Lithium-Sulfur Batteries. 1
- 117 Poly(ionic liquid) Nanovesicle-Templated Carbon Nanocapsules Functionalized with Uniform Iron Nitride Nanoparticles as Catalytic Sulfur Host for Li-S Batteries. 2
- 116 Electronic structure adjustment of lithium sulfide by a single-atom copper catalyst toward high-rate lithium-sulfur batteries. **2022**,
- 115 Double-active-site enables 2D B<sub>2</sub>S and B<sub>2</sub>S<sub>3</sub> catalyst with suppressed shuttle effect and improved polysulfides redox kinetics in lithium-sulfur batteries: A first-principles study. **2022**, 154295 0
- 114 Graphene-Based Materials for Li-S Batteries. **2022**, 189-213
- 113 Engineering MOFs-Derived Nanoarchitectures with Efficient Polysulfides Catalytic Sites for Advanced Li-S Batteries. 2200238 2
- 112 Highly Selective Recovery of Phosphorus from Wastewater via Capacitive Deionization Enabled by Ferrocene-polyaniline-Functionalized Carbon Nanotube Electrodes. 0
- 111 Yolk-double shells hierarchical N-doped carbon nanosphere as an electrochemical nanoreactor for high performance lithium-sulfur batteries. **2022**, 198, 80-90 2



- 110 Efficient polysulfide conversion by Fe-N/C active sites anchored in N, P- doped carbon for high-performance lithium-sulfur batteries. **2022**, 922, 166132 0
- 109 V-substitution function on polyoxometalate catalyst for rapid conversion of polyselenides in Li-Se batteries. **2022**, 449, 137819 3
- 108 Ultrahigh Sulfur Loading Tolerant Cathode Architecture with Extended Cycle Life for High Energy Density Lithium-Sulfur Batteries. 2201494 4
- 107 Design of CoP-CoO heterostructure to enhance the polysulfide redox conversion for lithium-sulfur batteries. **2022**, 920, 116644 0
- 106 Materials and Technologies for Metal-Sulfur Batteries. **2022**, 1-26
- 105 Catalytic Effects of Electrodes and Electrolytes in Metal-Sulfur Batteries: Progress and Prospective. 2204636 0
- 104 Regulating Lithium Salt to Inhibit Surface Gelation on an Electrocatalyst for High-Energy-Density Lithium-Sulfur Batteries. **2022**, 144, 14638-14646 2
- 103 Synergistic Restriction to Polysulfides by a Carbon Nanotube/Manganese Sulfide-Decorated Separator for Advanced Lithium-Sulfur Batteries. **2022**, 36, 8460-8470 1
- 102 Intrinsic regularity of catalytic cobalt chalcogenides in lithium-sulfur battery: Theoretical study delivers new insights.
- 101 Catalytic hosts with strong adsorption strength for long shelf-life lithium-sulfur batteries under lean electrolyte.
- 100 In situ induced cation-vacancies in metal sulfides as dynamic electrocatalyst accelerating polysulfides conversion for Li-S battery. **2022**, 1 1
- 99 Selective sulfur conversion with surface engineering of electrocatalysts in a lithium-sulfur battery. 0
- 98 Achieving Sustainable and Stable Potassium-Ion Battery by Leaf-Bioinspired Nanofluidic Flow. 2204370 3
- 97 Demystifying Activity Origin of MnO Single-Atomic Mediators Toward Expedited Rate-Determining Step in Li-S Electrochemistry. 2200059 2
- 96 Targeted Catalysis of the Sulfur Evolution Reaction for High-Performance Lithium-Sulfur Batteries. 2202232 3
- 95 Modulating Bond Interactions and Interface Microenvironments between Polysulfide and Catalysts toward Advanced Metal-Sulfur Batteries. 2207021 2
- 94 Designing a double-coated cathode with high entropy oxides by microwave-assisted hydrothermal synthesis for highly stable Li-S batteries. 1
- 93 Catalytic Disproportionation for Suppressing Polysulfide Shuttle in Li-S Pouch Cells: Beyond Adsorption Interactions. 2201912 2


92	Oxygen heteroatom enhanced sulfur-rich polymers synthesized by inverse vulcanization for high-performance lithium-sulfur batteries. <b>2022</b> , 545, 231921	0
91	Synthesis of hollow S/FeS <sub>2</sub> @carbon nanotubes microspheres and their long-term cycling performances as cathode material for lithium-sulfur batteries. <b>2022</b> , 922, 116724	0
90	A flexible design strategy to modify Ti <sub>3</sub> C <sub>2</sub> T MXene surface terminations via nucleophilic substitution for long-life Li-S batteries. <b>2022</b> , 74, 349-358	0
89	Tunable MOFs derivatives for stable and fast sulfur electrodes in Li-S batteries. <b>2022</b> , 450, 138287	1
88	A hierarchically porous TiN/N-C electrocatalyst with high interface utilization for lithium-sulfur batteries. <b>2022</b> , 605, 154682	0
87	Dispersing single-layered Ti <sub>3</sub> C <sub>2</sub> TX nanosheets in hierarchically-porous membrane for high-efficiency Li <sup>+</sup> transporting and polysulfide anchoring in Li-S batteries. <b>2022</b> , 53, 32-41	3
86	Multi-function hollow nanorod as an efficient sulfur host accelerates sulfur redox reactions for high-performance Li-S batteries. <b>2023</b> , 629, 65-75	1
85	MOF-derived MoP nanorods decorated with a N-doped thin carbon layer as a robust lithiophilic and sulfiphilic nanoreactor for high-performance LiS batteries. <b>2022</b> , 6, 3989-4000	0
84	A review on modified polymer composite electrolytes for solid-state lithium batteries.	0
83	Recent advances in novel graphene: new horizons in renewable energy storage technologies. <b>2022</b> , 10, 11472-11531	1
82	Advances of graphene-based aerogels and their modifications in lithium-sulfur batteries. <b>2023</b> , 201, 679-702	0
81	Wide-Temperature-Range LiS Batteries Enabled by Thiodimolybdate [Mo <sub>2</sub> S <sub>12</sub> ]2 <sup>4-</sup> as a Dual-Function Molecular Catalyst for Polysulfide Redox and Lithium Intercalation. <b>2022</b> , 16, 14569-14581	0
80	Cobalt Nanoparticles Loaded on MXene for Li-S Batteries: Anchoring Polysulfides and Accelerating Redox Reactions. 2204005	1
79	Review on recent advances in two-dimensional nanomaterials-based cathodes for lithium-sulfur batteries.	0
78	Crystallinity Regulated Functional Separator Based on Bimetallic Ni <sub>x</sub> Fe <sub>y</sub> Alloy Nanoparticles for Facilitated Redox Kinetics of LithiumSulfur Batteries. 2207094	0
77	Sulfur Reduction Reaction in LithiumSulfur Batteries: Mechanisms, Catalysts, and Characterization. 2202094	1
76	Synergistic Catalysis on Dual-Atom Sites for High-Performance LithiumSulfur Batteries. 2200205	2
75	Synergistic effect of adsorption and electrocatalysis of CoO/NiO heterostructure nanosheet assembled nanocages for high-performance lithiumSulfur batteries.	0

74	Spherical Templating of CoSe <sub>2</sub> Nanoparticle-Decorated MXenes for Lithium-Sulfur Batteries.	1
73	Zinc-assisted Cobalt-ditelluride Polyhedra Inducing Lattice Strain to Endow Efficient Adsorption-catalysis for High-energy Lithium-sulfur Batteries. 2204403	0
72	A Zn <sub>8</sub> Double-Cavity Metallacalix[8]arene as Molecular Sieve to Realize Self-Cleaning Intramolecular Tandem Transformation of LiS Chemistry. 2207689	1
71	Carbon Coated Metal-Based Composite Electrode Materials for Lithium Sulfur Batteries: A Review. 2022, 22,	0
70	Spin Effect to Promote Reaction Kinetics and Overall Performance of Lithium-Sulfur Batteries under External Magnetic Field.	0
69	Recent advancement in rechargeable battery technologies.	0
68	Contribution of different metal nodes on stepwise electrocatalysis in lithium-sulfur batteries. 2022,	2
67	Spin Effect to Promote Reaction Kinetics and Overall Performance of Lithium-Sulfur Batteries under External Magnetic Field.	4
66	Porous-crystalline C/Fe <sub>3</sub> O <sub>4</sub> microspheres with highly accessible adsorptive/catalytic and conductive interfaces to manipulate polysulfide shuttling in Li-S batteries. 2022, 435, 141385	0
65	Multifunctional Ni/NiO heterostructure nanoparticles doped carbon nanorods modified separator for enhancing LiS battery performance. 2022, 435, 141396	1
64	Encapsulate lithium sulfide cathodes with carbon-doped MoS <sub>2</sub> for fast kinetics in lithium-sulfur batteries, a theoretical study. 2023, 242, 118441	0
63	A synergistic effect on a ternary Co-S-Se catalytic material for simultaneous enhancement of the kinetics and stability in a lithium-sulfur battery. 2023, 609, 155333	0
62	Flexible 2D Boron Imidazolate Framework for Polysulfide Adsorption in Lithium-Sulfur Batteries.	2
61	Phase Evolution of VC-VO Heterogeneous Particles to Facilitate Sulfur Species Conversion in LiS Batteries. 2210987	3
60	Core-shell hollow nanostructures as highly efficient polysulfide conversion and adsorption cathode for shuttle-free lithium-sulfur batteries. 2022, 140338	1
59	Controllable Catalysis Behavior for High Performance Lithium Sulfur Batteries: From Kinetics to Strategies. 2022, 100096	0
58	Tuning the Surface Structure of CeO <sub>2</sub> Nanoparticles by Chlorine-doped Strategy to Improve the Polysulfide Reaction Kinetic for Lithium Sulfur Battery. 2022, 130571	0
57	Co-doped g-C <sub>3</sub> N <sub>4</sub> nanotube decorated separators mediate polysulfide redox for high performance lithium sulfur batteries.	0

- 56 Dual additive of lithium titanate and sulfurized pyrolyzed polyacrylonitrile in sulfur cathode for high rate performance in lithium-sulfur battery. **2022**, 25, 351-358 ○
- 55 A tandem electrocatalyst with dense heterointerfaces enabling the stepwise conversion of polysulfide in lithium-sulfur batteries. **2023**, 55, 445-454 ○
- 54 Intermolecular adsorption-pairing synergy for accelerated polysulfide redox reactions towards lithium-sulfur battery with high stability. **2023**, 55, 21-32 ○
- 53 High-performance MoS<sub>2</sub> quantum dots/graphene functionalized separator and its failure analysis under high sulfur loading. **2023**, 456, 140972 ○
- 52 Entrapment of polysulfides by a BiFeO<sub>3</sub>/TiO<sub>2</sub> heterogeneous structure on separator for high-performance LiS batteries. **2023**, 556, 232501 ○
- 51 A rational design of titanium-based heterostructures as electrocatalyst for boosted conversion kinetics of polysulfides in Li-S batteries. **2023**, 633, 432-440 ○
- 50 Oxygen defect-rich MnOOH nanorod as an effective modulator to boost polysulfide reaction kinetic for high-performance lithium sulfur battery. **2023**, 614, 155869 ○
- 49 Phosphorus-Functionalized Organic Linkers Promote Polysulfide Retention in MOF-Based LiS Batteries. **2022**, 5, 15302-15309 ○
- 48 Fabrication of electrospun bilayer separators for lithium-sulfur batteries: A surface and structure dual modification strategy. **2022**, 65, 3029-3038 1
- 47 Tuning the Architecture of Hierarchical Porous CoNiO<sub>2</sub> Nanosheet for Enhanced Performance of Li-S Batteries. **2022**, 8, 262 ○
- 46 A High-Performance Tellurium-Sulfur Cathode in Carbonate-Based Electrolytes. **2022**, 108141 1
- 45 Advanced Nanostructured Materials for Electrocatalysis in Lithium-Sulfur Batteries. **2022**, 12, 4341 ○
- 44 Recent advances and perspectives of CeO<sub>2</sub>-based catalysts: Electronic properties and applications for energy storage and conversion. 10, ○
- 43 Application and Progress of Confinement Synthesis Strategy in Electrochemical Energy Storage. ○
- 42 Oxygen-modulated metal nitride clusters with moderate binding ability to insoluble Li<sub>2</sub>S for reversible polysulfide electrocatalysis. ○
- 41 Anchoring and Catalytic Effects of rGO Supported VS<sub>2</sub> Nanosheets Enable High-Performance Li/Organosulfur Battery. 2207047 1
- 40 Protecting lithium metal anodes in lithium-sulfur batteries: A review. **2023**, 4, ○
- 39 Highly crinkled and interconnected N, O and S co-doped carbon nanosheets modified separator for efficient Li-S batteries. ○

38	Electrocatalysts in lithium-sulfur batteries.	1
37	A Comparison Study of the Electrocatalytic Sulfur Reduction Activity on Heteroatom-Doped Graphene for LiS Battery. 2200244	0
36	Low temperature ensures FeS <sub>2</sub> cathode a superior cycling stability in Li <sub>7</sub> P <sub>3</sub> S <sub>11</sub> -based all-solid-state lithium batteries. 10,	1
35	Defect Engineering in Carbon Materials for Electrochemical Energy Storage and Catalytic Conversion.	0
34	Core-shell polyoxometalate-based zeolite imidazole framework-derived multi-interfacial MoSe <sub>2</sub> /CoSe <sub>2</sub> @NC enabling multi-functional polysulfide anchoring and conversion in lithium-sulfur batteries.	0
33	Adsorption-catalysis design with cerium oxide nanorods supported nickel-cobalt-oxide with multifunctional reaction interfaces for anchoring polysulfides and accelerating redox reactions in lithium sulfur battery. <b>2023</b> , 635, 466-480	0
32	Isolated Fe-Co heteronuclear diatomic sites as efficient bifunctional catalysts for high-performance lithium-sulfur batteries. <b>2023</b> , 14,	1
31	Cathode materials for lithium-sulfur battery: a review.	1
30	The Dual-Site Adsorption and High Redox Activity Enabled by Hybrid Organic-Inorganic Vanadyl Ethylene Glycolate for High-Rate and Long-Durability LithiumSulfur Batteries. 2206750	0
29	Catalytic performance of binary transition metal sulfide FeCoS <sub>2</sub> /rGO for lithiumSulfur batteries. <b>2023</b> , 27, 1045-1053	0
28	Rational design of the cathode catalysts for high performance lithiumSulfur batteries. <b>2023</b> , 4, 011308	0
27	Supercritical carbon dioxide technology in synthesis, modification, and recycling of battery materials. <b>2023</b> , 2, 169-185	0
26	Review and Perspectives on Advanced Binder Designs Incorporating Multifunctionalities for LithiumSulfur Batteries.	0
25	Toward high-sulfur-content, high-performance lithium-sulfur batteries: Review of materials and technologies. <b>2023</b> , 80, 625-657	1
24	Highly electrocatalytic active amorphous Al <sub>2</sub> O <sub>3</sub> in porous carbon assembled on carbon cloth as an independent multifunctional interlayer for advanced lithium-sulfur batteries. <b>2023</b> , 618, 156689	0
23	Regulating the d-p band center of FeP/Fe <sub>2</sub> P heterostructure host with built-in electric field enabled efficient bidirectional electrocatalyst toward advanced lithium-sulfur batteries. <b>2023</b> , 463, 142397	0
22	Deep dive into anionic metalOrganic frameworks based quasi-solid-state electrolytes. <b>2023</b> , 81, 313-320	0
21	A Honeycomb-Structured CoF <sub>2</sub> -Modified Separator Enabling High-Performance LithiumSulfur Batteries.	0

- 20 Optimizing the p charge of S in p-block metal sulfides for sulfur reduction electrocatalysis. **2023**, 6, 174-184 ○
- 19 Multiple Effects of High Surface Area Hollow Nanospheres Assembled by Nickel Cobaltate Nanosheets on Soluble Lithium Polysulfides. **2023**, 28, 1539 ○
- 18 Dual Single-Atom Moieties Anchored on N-Doped Multilayer Graphene As a Catalytic Host for Lithium-Sulfur Batteries. ○
- 17 A short review of the recent developments in functional separators for lithium-sulfur batteries. **2023**, 40, 473-487 ○
- 16 Advanced two-dimensional materials toward polysulfides regulation of metal-Sulfur batteries. ○
- 15 Insights into the electrochemical properties of Li<sub>2</sub>FeS<sub>2</sub> after FeS<sub>2</sub> discharging. **2023**, 25, 8515-8523 ○
- 14 Hollow Co<sub>3</sub>S<sub>4</sub> Nanocubes Interconnected with Carbon Nanotubes as Nanoreactors to Accelerate Polysulfide Conversion for High-Performance Lithium-Sulfur Batteries. **2023**, 62, 4364-4372 ○
- 13 In Situ Transformation of LDH into NiCo<sub>2</sub>S<sub>4</sub>-NiS<sub>2</sub> Nano-heterostructures on Hollow Carbon Boxes to Promote Sulfur Electrochemistry for High-Performance Lithium-Sulfur Batteries. **2023**, 37, 4711-4719 ○
- 12 Integrating the multiple functionalities in metalloporphyrin porous organic polymers enabling strong polysulfide anchoring and rapid electrochemical kinetics in Li-S batteries. ○
- 11 Dual-Functional Lithiophilic/Sulfiphilic Binary-Metal Selenide Quantum Dots Toward High-Performance Li-S Full Batteries. **2023**, 15, ○
- 10 Petal-like Mn-doped Ni(OH)<sub>2</sub> nanosheets for high-performance Li-S cathode material. **2023**, 13, 8706-8717 ○
- 9 Space-Confined Electrochemical Reactions and Materials for High-Energy-Density Batteries. ○
- 8 Identification and Catalysis of the Potential-Limiting Step in Lithium-Sulfur Batteries. **2023**, 145, 7390-7396 ○
- 7 Molten salt etched Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene for ameliorated electrochemical performances of lithium-sulfur batteries. **2023**, 34, ○
- 6 Metal Coordinated Polymer as Three-Dimensional Network Binder for High Sulfur Loading Cathode of Lithium-Sulfur Battery. ○
- 5 Ultrathin Carbon-Shell-Encapsulated Cobalt Nanoparticles with Balanced Activity and Stability for Lithium-Sulfur Batteries. **2023**, 15, 19002-19010 ○
- 4 Engineering Peculiar Cathode Electrolyte Interphase toward Sustainable and High-Rate Li-S Batteries. ○
- 3 Structural and Redox Interconversions of Sulfur Ligands of Transition Metal Complexes. 1-43 ○

- 2 Built-in ultrafine CoS<sub>2</sub> catalysis in confined ordered micro-mesoporous carbon nanoreactors for high-performance LiB batteries. **2023**, 573, 233136 
- 1 Ultra-small TiO<sub>2</sub> truncated octahedron nanocrystals with exposed index {1 0 1} facets modified separator for High-Performance Li-S batteries. **2023**, 344, 134470 